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ANNUAL REPORT

OF THE

Department of Health

OF THE

City of Newark, New Jersey



For the Year Ending December 31, 1913



THE NEWARK CITY TUBERCULOSIS SANATORIUM VERONA, NEW JERSEY.

ANNUAL REPORT

OF THE

Department of Health

CITY OF NEWARK, NEW JERSEY



FOR THE YEAR ENDING DECEMBER 31, 1913

THE ESSEX PRESS, PRINTERS,
NEWARK, N. J.



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MEMBERS OF THE BOARD OF HEALTH
OF NEWARK, NEW JERSEY

FOR THE YEAR 1913

Dr. H. C. H. HEROLD.....	1012 Broad Street
Dr. THEODORE W. CORWIN.....	146 Second Avenue
Dr. J. T. WRIGHTSON.....	25 Walnut Street
Mr. JOHN H. McLEAN.....	259 South Tenth Street
Mr. CHARLES W. BAKER.....	234 Roseville Avenue
Dr. GEORGE L. WARREN.....	77 Houston Street
Mr. TIMOTHY F. FOYLE.....	326 Warren Street
Dr. FRANK B. MEEKER.....	63 First Street
Mr. OTTO B. SCHALK.....	455 Fourth Avenue
Mr. CHARLES L. WHITFIELD.....	384 Summer Avenue

HEALTH OFFICER.

Mr. DAVID D. CHANDLER.....	376 Roseville Avenue
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STANDING COMMITTEES OF THE BOARD OF HEALTH

FOR THE YEAR 1913

SANITATION.

DR. MEEKER

MR. FOYLE

MR. BAKER

DR. CORWIN

MR. McLEAN

FINANCE.

MR. McLEAN

MR. SCHALK

MR. WHITFIELD

LAWS AND ORDINANCES.

MR. WHITFIELD

MR. FOYLE

MR. BAKER

RULES.

DR. CORWIN

DR. WARREN

DR. WRIGHTSON

APPOINTMENTS.

MR. FOYLE

MR. SCHALK

MR. WHITFIELD

SUPPLIES.

MR. SCHALK

MR. McLEAN

MR. BAKER

CITY HOSPITAL.

DR. WRIGHTSON

DR. WARREN

DR. MEEKER

MR. FOYLE

MR. McLEAN

BOARD OF HEALTH.

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TRAINING SCHOOL

DR CORWIN

DR. WARREN

DR. WRIGHTSON

DR MEEKER

DR. HEROLD

TUBERCULOSIS SANATORIUM

DR WARREN

MR FOYLE

DR. CORWIN

DR. WRIGHTSON

MR. BAKER

FOOD AND DRUGS

MR SCHALK

MR. BAKER

DR. CORWIN

MR. McLEAN

SEX HYGIENE AND SOCIAL ETHICS

DR. HEROLD

MR. SCHALK

DR WARREN

MR. McLEAN

PURCHASING.

MR WHITFIELD

MR. SCHALK

DR. WARREN

DR. MEEKER

MEETINGS

The regular meetings of the Board are held on the First and Third Tuesdays of each month at 8 30 P. M. The meeting on the First Tuesday shall be held for the transaction of all business pertaining to the Sanitary Department. The meeting of the Third Tuesday shall be held for the transaction of all business pertaining to the Newark City Hospital and Newark City Sanatorium.

The regular meetings of the Sanitary Committee will be held on the Thursday preceding the first Tuesday of each month at 8 30 P. M.

Should the above meeting fall on a legal holiday, then such meeting shall be held on the day previous.

EMPLOYEES OF THE BOARD OF HEALTH

OFFICE DIVISION

JOHN J. GREENE.....	<i>Clerk, Bureau Contagious Diseases</i> 308 Riverside Avenue.
W. J. BUEHLER	<i>Bookkeeper</i> 14 Sanford Avenue
WILLIAM H. YOUNG.	<i>Clerk, Sanitary Division</i> Summer Avenue
ELBERT S. BALL.	<i>Clerk Sanitary Division</i> 226 South Tenth Street
MISS RUTH KENNEDY	<i>Stenographer to Health Officer</i> 26 Monmouth Street
ROBERT F. MORGAN	<i>Stenographer and Clerk</i> 133 West Kinney Street
MISS JESSIE McNAIL.	<i>Telephone Operator</i> 117 Renner Avenue
MISS CORA B. NATHAN	<i>Clerk</i> Walnut Street
EDWARD E. WORL, M. D.	<i>Superintendent, Bureau Contagious Diseases</i> 271 High Street
HERBERT B. BALWIN	<i>Chemist</i> 927 Broad Street
WILLIAM WIENER... ..	<i>Meteorologist</i> N. 18th Street

BACTERIOLOGICAL DIVISION

DR. R. N. CONNOLLY	City Hospital Building.	Int. rec. 11
DR. THOMAS RIPLEY	101 Hillside Avenue.	Assistant Bacteriologist
DR. H. A. TARBELL	87 Hillside Avenue.	Second Assistant Bacteriologist
JOHN OLIVER.....	11 South	Order
JOHN A. DUNN. ..	65 South Seventh Street.	Culture
WILLIAM J. FOYLE.	142 Hudson Street	Culture

SANATORIUM FOR TUBERCULOSIS

DR JOHN L. MEEKER...	...Medical Director
EDITH RILEY	Superintendent and Head Nurse
GENEVIEVE KETCHAM HEROLD	Nurse
MARY E ROSE	Nurse
OSCAR A HEROLD	Clerk
GEORGE M DENMAN	...Nurse
MARY DEVINE....	Nurse
BERNARD LAWRENCE	Assistant Cook
KATHERINE BRADLEY	Ma id
FORTUNA CATHERINO	Ma id
ANTOINETTE CARBONE	Ma id
KATE FOX	Laundress
JENNIE LAVEN	Laundress
LILLIAN EMORY	Laundress
GEORGE RICHEL	Order
AUGUST POLESTEN	Helper
MICHAEL LEVANT	Stableman

BOARD OF HEALTH.

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CITY DISPENSARY

WILLIAM A. SMITH *Apothecary*
40 Nelson Place

HENRY A. OLTMAN *Assistant Apothecary*
348 Thirteenth Avenue

LEO J. McMANUS..... *Dentist*
240 Mulberry Street

ANNA BRIDGETT *Nurse*
22 Nelson Place

PAYSACH G. SPAN *Janitor*
337 Washington Street.

DISTRICT PHYSICIANS

*DR. P. G. HOOD. 350 Clinton Avenue

*DR. F. W. PINNEO .199 Garside Street

DR. CHARLES F. HILL .51 Hamburg Place

DR. CHARLES L. O'NEILL 1. North Seventh Street

DR. DON A. EFLER 82 Congress Street

*DR. SAMUEL HIRSCHBERG 145 South Orange Avenue

*DR. LOUIS WEISS 544 Springfield Avenue

*DR. W. F. L. RODEMANN 2 Stratford Place

*DR. O. G. MATHEKE 5 Fourth Street

DR. MEYER JEDEL .125 Fourth Street

DR. MARY E. BROADNAX .18 Elizabeth Avenue

DR. WILLIAM C. FISCHER 862 South Orange Avenue

SANITARY DIVISION MEAT INSPECTORS

WERNER RINGE .130 Union Street

DANIEL KUHN 882 South 17th Street

PLUMBING INSPECTORS.

JOHN B. SULLIVAN, *Chief*.. . . . 204 Second Street

JOHN L. WHEALAN..... 120 Lincoln Avenue

EDWARD P. COULSTON 375 Walnut Street

CHARLES A. HALLGRING 376 Walnut Street

ANDREW J. MCGOOKIN.. . . . 510 South 17th Street

JACOB KULL.....204 Belmont Avenue

*Suspended from duty August 1st, 1913.

FOOD AND DRUG INSPECTORS

SAMUEL G. SHARWELL, <i>Chief</i>	69 South 7th Street
BERNARD J. CAHILL	160 South Tenth Street
*WILLIAM S. WEBB	9 Avenue Street
*LOUIS E. BOUTILLIER	127 South Seventh St
* Detailed as Food and Drug Inspectors	

INSPECTOR NURSES

MRS. LOUISE RICHARDS WHEATON	23 Ninth Avenue
MISS LAVINIA M. WARD	101 Mt Prospect Avenue

DETAILED INSPECTORS TO HEALTH OFFICER

ANDREW J. BRADY	49 Seymour Avenue
CHARLES F. CONNOR	232 South Sixth Street

SANITARY INSPECTORS

*WILLIAM H. LYLE	227 South Sixth Street
*FORMAN J. REYNOLDS	6 Rector Street
CHARLES H. BUR	125 Union Street
HUBERT O'ROURKE	128 Milford Avenue
ANTONIO PAZ	17 Madison Street
PATRICK J. KEATING	111 Bergen Street
GEORGE A. VAN HOUTEN	716 Bergen Street
WILLIAM HOPPER	123 Sherman Avenue
JAMES WHELAN	193 Parker Street
RY MACDONALD	1 Vermont Avenue
CASPAR BENZ	14 Fifth Street
EDWARD J. FLYNN	111 1st Street
CHARLES E. DEVINE	58 Beverly Street
HOWARD HUFFERT	106 South Eighth Street
ALBERT BRELENBACH	858 Bergen Street
PATRICK J. BROGAN	105 Fourth Street
JOSEPH A. MCGUI	6 Norfolk Street
ADOLPH O. ELSA	1 South Nineteenth Street
GUSTAVE FRIEDMAN	171 South 11th Street
J. PALMER	498 12th Avenue

* William H. Lyle retired September 1st, 1913

* Forman J. Reynolds, retired—January 1st, 1913.

DISINFECTING CORPS

SAMUEL KNOTT, <i>Chief</i> .	279 Plane Street
HIRAM R. STEWART	59 West End Avenue
LEONARD V. GILLEN	24 Orchard Street
THOMAS F. NEWTON	17 Rowland Street
RICHARD J. CORBALLY	189 Highland Avenue
THOMAS MULLIGAN	17 Stanton Street
*MORRIS SEIDL	413 South 8th Street
GEORGE W. GILMORE	169 Ridgewood Avenue
IRVING L. LEE	45 Eleventh Avenue
JAMES J. SYKES	325 Walnut Street
FREDERICK NICHOLS	18 Ninth Avenue
ARTHUR H. HENRY	62 16th Avenue
ALAN S. TAPPAN	46 Nelson Place

MEDICAL INSPECTORS OF PAROCHIAL SCHOOLS.

* LEO H. LEE	89 Mott Street
LEONARD McBRIDE	218 Mulberry Street
* LEO J. COLLINS	116 Bank Street
*—DR. PATRICK J. CLARK	235 South 18th Street
*—DR. D. R. CAMPBELL	38½ Walnut Street

* Detailed to do duty at City Dispensary.

* Suspended from duty August 1st, 1913

DISTRICT PHYSICIANS -1913

1st DISTRICT—DR. PHILIP G. HOOD. District Lines. Polk Street, Lafayette Street, Hamburg Place, Thomas Street and Passaic River.

2nd DISTRICT—DR. CHAS. F. HILL—District Lines. Polk Street, Lafayette Street, Hamburg Place, Thomas Street, Newark Bay, City Line, Avenue "D," Pacific Street, Clifford Street, Jefferson Street and Passaic River.

3rd DISTRICT—DR. DONALD J. R. J. District Lines. Jefferson Street, Clifford Street, Pacific Street, Tichenor Street, Broad Street, Market Street, Railroad Place and Passaic River.

4th DISTRICT—DR. CHARLES L. O'NEILL. District Lines. Railroad Place, Market Street, Broad Street, Lincoln Park, Spruce Street, High Street, Central Avenue, Fulton Street and Passaic River.

5th DISTRICT—DR. IRVING LINN. District Lines. High Street, Warren Street, Newark Street, Richmond Street, Rankin Street, Charlton Street, Spruce Street.

6th DISTRICT—DR. SAMUEL L. K. District Lines. Charlton Street, Springfield Avenue, Fifteenth Avenue, City Line, Central Avenue, Clinton Place, Hawthorne Avenue, Ridgewood Avenue, Livingston Street, Eighteenth Avenue and Spruce Street.

7th DISTRICT—DR. EDUARD WEISS. District Lines. Fifteenth Avenue, Springfield Avenue, Rankin Street, Richmond Street, Newark Street, Warren Street, Central Avenue and City Line.

- 8th DISTRICT—DR. W. F. L. RODEMANN, District Lines: High Street, Eighth Avenue, Clifton Avenue, Norfolk Street, Central Avenue, Hudson Street and Warren Street
- 9th DISTRICT—DR. A. G. MATHEKE—District Lines: Central Avenue, Warren Street, Hudson Street, Norfolk Street, Clinton Avenue, Bloomfield Avenue and City Line.
- 10th DISTRICT—DR. MEYER JEDEL—District Lines: Fulton Street, Central Avenue, High Street, Eighth Avenue, Clifton Avenue, Bloomfield Avenue, City Line and Passaic River
- 11th DISTRICT—DR. MARY E. BROADNAX—District Lines: Avenue "D," Pacific Street, Tichenor Street, Lincoln Park, Spruce Street, Eighteenth Avenue, Livingston Street, Ridgewood Avenue and City Line
- 12th DISTRICT—DR. WILLIAM C. FISCHER—District Lines: South Twentieth Street, to City Line on the north, south and west sides

DISTRICT LINES FROM AUGUST 1, 1913

- 1st DISTRICT—DR. CHARLES F. HILL—Adams Street, Avenue "F," Market Street, Broad Street, Fulton Street and Passaic River.
- 2nd DISTRICT—DR. MARY E. BROADNAX—Tichenor Street, Broad Street, Clinton Avenue, Avenue "F" and City Line
- 3rd DISTRICT—DR. W. F. L. RODEMANN—Adams Street, Tichenor Street, Broad Street and Market Street.
- 4th DISTRICT—DR. SAMUEL HIRSCHBERG—Broad Street, Clinton Avenue, High Street, South Orange Avenue, Bergen Street, Warren Street, Sussex Avenue and Central Avenue
- 5th DISTRICT—DR. WILLIAM C. FISCHER—Clinton Avenue, High Street, South Orange Avenue, Bergen Street, Warren Street and City Line
- 6th DISTRICT—DR. MEYER JEDEL—Fulton Street, Central Avenue, Sussex Avenue, Warren Street and City Line.

ANTI TOXIN AND CULTURE STATIONS

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BOARD OF HEALTH.

STATION	Street and Number	Telephone No.
Oscar Scholz	131 Hamburg Place	4343 Market
Samuel Singer	77 Ferry Street	1493 "
O. Von Gehren	200 Ferry Street	1367 "
L. Griesenbeck	28 Bowery Street	1590 "
Chas. Holzhauer	787 Broad Street	1312 "
E. F. Fielding	925 Broad Street	914 "
G. L. Matt & Bros.	17 Linden Park	" "
A. J. Sachs	484 Broad Street	3754 "
Chas. J. M. I.	166 Central Avenue	1319 "
L. I. S.	169 South Orange Avenue	1539 "
J. I. S.	315 South Orange Avenue	1514 "
P. F. Corrigan	25 Wallace Place	1391 "
C. W. Menk	106 Market Street	291 "
St. Mary's Hospital	Central Avenue and High Street	700 "
D. Strauss	Springfield Avenue and High Street	4633 "
E. Broch	Central Avenue and High Street	3301-J "
St. Barnabas Hospital	Market Street and High Streets	666 "
A. Marquier	1061 South Orange Avenue	2878 "
Firemen's Pharmacy	Broad and Market Streets	412 "
City Dispensary	Plane and William Streets	870 "

ANTI-TOXIN AND CULTURE STATIONS -Continued

STATION	Street and Number	Telephone No.
First Precinct Police	Washington and Court Streets	5400 "
Second Precinct Police	Seventh Avenue	5400 "
Third Precinct Police	Van Buren Street	5400 "
Fourth Precinct Police	17th Avenue and Livingston street	5400 "
Fifth Precinct Police	Orange and Sixth Streets	5400 "
Sixth Precinct Police	Hunterdon and Bigelow Streets	5400 "
Seventh Precinct Police	958 South Orange Avenue	5400 "
F. L. Feind	76 Belmont Avenue	2494 Waverly
Emil Reichle	362 Springfield Avenue	2023 "
W. E. Moore	531 Clinton Avenue	1468 "
G. F. Tempel	210 Clinton Avenue	818 "
L. Hagny	Central Avenue and Fifth Street	651 Br Brook
W. R. Scudder	95 Belleville Avenue	1142 "
George Brown	289 Belleville Avenue	701 "
A. R. Bianchi	Seventh Avenue and Sheffield Street	1430 "
J. B. Foster	Seventh and Roseville Avenues	151 "
Geo. D. Foster	190 Washington Avenue	1091 "
H. J. Quinn	187 Bloomfield Avenue	269 "

CULTURE COLLECTORS

JOHN F. DUNN
65 South Seventh Street

WILLIAM J. FOYLE
142 Hudson Street

CLINICS AT CITY DISPENSARY

MEDICAL.

9 A. M. daily except Sunday.

DISEASES OF CHILDREN.

Monday, Wednesday, Friday, 10 o'clock.

SURGICAL.

Daily except Sunday, 9 o'clock.

GENITO URINARY.

Monday and Thursday, 10 o'clock.

DISEASES OF WOMEN

Tuesday and Friday, 3 o'clock.

DISEASES OF SKIN.

Tuesday and Friday, 9:30 o'clock.

DENTIST.

Monday, Wednesday, Friday, 1 o'clock.

THROAT AND NOSE.

Monday, 3 P. M.

TUBERCULOSIS

Monday and Wednesday, 3 o'clock.

NERVE DISEASES.

Friday, 2 o'clock.

SYPHILLIS

Wednesday, 3 P. M.

ORTHOPEDIC

Monday, 3 P. M.

ANNUAL REPORT
OF THE
HEALTH OFFICER
FOR THE YEAR 1913

ANNUAL REPORT

OF THE

HEALTH OFFICER

*To the Honorable, the Board of Health of the City of
Newark, N. J.*

GENTLEMEN, I have the honor to herewith present to you my report of the workings of the various divisions of the Department of Public Health, together with the report of the Bacteriologist, Chemist, Superintendent of Bureau of Contagious Diseases, Superintendent of Newark City Sanatorium for Tuberculosis and Medical Director of the Newark City Sanatorium for Tuberculosis for year ending December 31, 1913.

SANITARY DIVISION.

The city is divided into 18 districts, patrolled by 18 inspectors, appointed by the Board of Health. Each inspector is held responsible for the sanitary condition of his district.

Inspections from Complaint Book.	3,678
Inspections from Complaint Book, verified .	3,100
Inspections from Complaint Book, no cause.	578
Number of original inspections made	21,077
Total number of inspections made	27,691
Number of written notices served	2,147
Number of abatements from written notices	2,651
Number of verbal notices served	6,898

Number of abatements from verbal notices	6 509
Total number of abatements	9, 2
Number of hours in court.....	1, 2
Number of cisterns and wells inspected	22
Samples of well and cistern water examined.	112
Number of wells and cisterns closed	54
Sewer connections ordered made.	137
Sewer drains inspected	1,278
Sewer drains inspected to curb line	83
Cesspools inspected	18
Alleyways inspected	1,660
Alleys filthy	202
Streets needing cleaning	6
Cellars needing cleaning.	1,465
Areaways needing cleaning	17
Ashes accumulation	1,004
Garbage accumulation	877
Surface drainage	17
Vacant lots in an unsanitary condition	213
Stagnant water in vacant lots	209
Defective water pipes.	132
Houses filthy	68
Houses unfit for habitation	14
Slaughter house inspections	16
Slaughter houses filthy.....	8
Houses unprovided with privy vault or water closet	15
Houses with no water supply	221
Houses with roofs leaking.	134
Storm gutters and leaders defective	583
Hydrants defective	26
Privy vaults filthy.	105
Privy vaults full	89
Cesspools full	76
Privy houses dilapidated	40
Privy vaults and houses over same ordered reconstructed	43
Privy vaults ordered cleaned and filled.	147
Yards inspected	18 178
Yards in an unsanitary condition	1,889
Plumbing defective	511
Water closets defective	727
Pits under water closets defective and not watertight	120
Stables inspected, including cow-stables.	1,093
Manure accumulation	868

BOARD OF HEALTH.

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Number of animal permits issued	94
Number of animals licensed...	719
Total number of nuisances found	10,197
Total number of reinspections..	12,041
Number of inspections for milk licenses	2,137
Number of inspections for chicken permits	346
Number of inspections for ice licenses.	198
Number of inspections of public and parochial schools....	1,559
Number of expectoration signs posted throughout the city.	400
Number of signs containing instruction on the subject of venereal diseases, posted throughout the city. . .	3,000
Number of stores visited in reference to food exposure .	400
Number of written notices served in connection with same.	121
Number of verbal notices served in connection with same.	200
Number of suit cases instituted for violation of sanitary code	181
Number of cases in which penalties were imposed .	13
Number of cases discontinued on payment of costs and abatement of nuisance	24
Number of cases discontinued because of change in own- ership	24
Number of cases discontinued prior to summons being served—work having been done.....	119
Number of cases instituted by Food and Drug Inspectors.	276
Number of cases in which penalties were imposed..	18
Number of cases in which penalties were imposed for violation of the spitting ordinance .	10
Number of cases in which penalties were imposed for violation of the ice ordinance	1
Number of stables disinfected for contagious diseases among animals, principally glanders	150
Number of blacksmith shops disinfected for contagious diseases among animals, principally glanders.....	142

PLUMBING DIVISION.

Plans approved	2,058
Plans rejected	119
Water tests made..	1,862
Plumbing inspections made ...	1,603
Final plumbing inspections made.	920

Smoke tests made.....	1,057
Sewer permits granted..	1,134
Cesspool permits granted	7
Privy vault permits granted.	7
Manure pit permit granted	1
Relay sewer permits granted	88
Violations served	10
Violations rectified	2
Hours in court.....	77
Hours devoted to Planning & examining Board	86

MEAT AND LIVE STOCK DIVISION.

This Division consists of two inspectors—one a Veterinarian whose duty it is to look after slaughter houses and wholesale meat markets, and the other an experienced butcher, whose duty it is to visit all the public and private meat and vegetable markets. The following is a summary of the work performed by them during the year 1913

VETERINARIAN.

Cattle inspected	14,380
Calves inspected	16,346
Sheep inspected	32,740
Hogs inspected	17,085
Total	80,551

CONDEMNED

Cattle	37
Carcasses of beef	20

BUTCHER SHOPS VISITED

Centre Market visited daily.	
Number of visits.....	8,019
Number of carcasses of beef inspected.	24,599
Number of lamb and sheep inspected	79,241
Number of calves inspected.	11,898
Number of hogs inspected...	13,045
Total	129,083

CONDEMNED

37 lbs. lamb
30 lbs link sausage
2 boxes pork butts
50 lbs. summer sausage
2 bbls peaches.
1 sheep
8 chickens
40 bbls. poultry.
1,383 lbs. poultry
2 bbls ducks
4 bbls rabbits
46 boxes poultry
2 hogs
2½ bbls, turkeys.
8 crates cranberries

Numerous complaints were investigated and adjusted

DRUG AND FOOD INSPECTOR'S REPORT

The Food and Drug Department submit the following report of their work for the year 1913:

During the past year we have done very little in dairy inspection owing to a lack of funds. At the end of the year the Board adopted a new milk ordinance which is acknowledged to be among the finest in the country. With the aid of this ordinance and three years' experience in this kind of work, we expect to make Newark's supply of milk as clean as can possibly be obtained.

Complaints investigated	164
Complaints verified	87
Complaints no cause	77
Dairies inspected	314

Dairies reinspected	1
Dairies inspected—not scored	1
Creameries inspected ..	4
Bottling plants inspected	2
Special inspections of soda factories	2
Special inspections of confectionery and ice cream factories	1
Special inspections of butcher shops and slaughter houses.	25
Special inspections of bakeries and restaurants.....	129
Special inspections of egg establishments.....	4
Exposed Food Violations—Verbal Notices	442
Exposed Food Violations—Written Notices	706
Exposed Food Violations—In for suit.....	255
Sealed milk samples to Chemist	918
Preliminary milk samples to Chemist.....	387
Milk samples for sediment test to Chemist.....	106
Cream samples to Chemist.	40
Other sealed samples to Chemist.....	25
Milk samples to Bacteriologist.....	1,092
Ice cream samples to Bacteriologist.....	55
Sealed samples of food with State Inspector.....	24
Hours in court.....	21
Milk fines collected for year.	\$1,767 00
Sealed samples below standard.....	81
Milk fines for first offenses.....	55
Milk fines for watered milk.....	11
Milk fines for second and third offenses.....	3
Milk fines remitted.....	5
Milk fines suits pending.....	7

Newark's approximate daily supply of milk.	118,000 Quarts
Approximate amount which is sold raw	54,000 "
Approximate amount which is sold pasteurized	64,000 "
Amount per day coming to the city	91,250 "
Amount per day raised in the suburbs.....	22,000 "
Amount per day raised in the city.....	4,250 "
Number of wagons selling milk here.	400
Number of stores selling milk here	925

The following foodstuff was also condemned as unfit for human consumption:

- 614 quarts strawberries.
- 94 pints raspberries.
- 3 crates raspberries.
- 1858 cans, bottles and jars of fermented food.
- 43750 cans Italian tomato sauce
- 312 quarts peaches.
- 5¾ crates eggs.
- 3 small baskets plums
- 8 crates cranberries.
- 11 cans lobster.
- 3 barrels crabs.
- 1½ barrels apples.
- 2½ bushels apples.
- 34 baskets apples.
- 17 bunches radishes.
- 1 crate asparagus.
- 41 pounds store and Swiss cheese.
- 4 Italian cheeses (40 pounds).
- 16 quarts peas.
- 16 quarts onions
- 22 quarts tomatoes.
- 20 boxes salted peanuts
- 1366 bretzels and rolls
- 60 slices watermelon.
- 1 barrel bretzels and ice cream cones.
- 1 crate pineapples.
- 100 bananas.
- 1 barrel pears.
- 1 barrel imported cherries.
- 7 bags potatoes.
- 13 cans beans.
- ¾ barrel sauerkraut
- 31000 pounds grapes.
- 9 turkeys.
- 1052 pounds turkeys.
- 20 barrels turkeys
- 48 chickens
- 3 barrels chickens
- 1694 pounds poultry.
- 9 barrels poultry

2 rabbits	
1 box rabbits	
1908 pounds rabbits	
2 barrels rabbits.	
3 ducks	
3 guinea hens.	
1 box ducks	
4 barrels ducks	
25 quarts dried apples.	

REPORT OF DETAILED INSPECTOR TO HEALTH OFFICER

FOR THE YEAR 1913

The following visits were made to the Water Sheds, Cedar Grove and Belleville Reservoirs, for the purpose of obtaining samples of our city water supply for bacteriological and chemical examinations:

Number of visits to watersheds.....	35
Number of visits to Cedar Grove.....	36
Number of visits to Belleville Reservoir.....	37

Samples of city water supply taken at the following places and delivered to Bacteriologist:

Oak Ridge Stream	23
Clinton Stream	23
Kanouse Brook	23
Echo Lake Stream.....	23
Macopin Intake	23
Cobb's Brook	1
Brown's Brook	1
Meter below Macopin Intake.	1
Cedar Grove Reservoir.....	49
Belleville Reservoir	44

Board of Health Office.....	23
From wells in city.....	28
From well and streams city of Newfoundland, N. J.....	8
Oak Ridge Stream.....	1

Total	273
----------------	-----

Samples of ice taken from streams in Westfield, N. J....	2
Samples of milk taken in city of Newfoundland, N. J.	1

Total	275
----------------	-----

Samples of water taken at the following points of our city water supply, and delivered to Mr Baldwin, Chemist:

Oak Ridge Stream.. . . .	12
Clinton Stream	12
Kanouse Brook	12
Echo Lake Stream.	12
Macopin Intake	12
Cedar Grove Reservoir	24
Belleville Reservoir	12
From wells in city	2

Total	98
----------------	----

On return trips from the Water Sheds on January 7th and 14th, December 10th and 23rd, the toilets on the Susquehanna Railroad cars were open. On all other trips the toilets were closed.

Number of inspections made.....	243
Number of inspections made with other inspectors.....	62

Total	305
-----------------	-----

In addition to the above several places in and around the Water Sheds were inspected. Also cemeteries, public baths, lodging houses, baby farms, parochial schools, daily excursion boats, motion picture theatres, dance halls and poultry markets were inspected and reported upon.

Numerous complaints were investigated and adjusted

REPORT OF DETAILED INSPECTOR TO HEALTH OFFICER 1913

INSPECTION OF SUSPECTED CASES OF RABIES.

Number of persons bitten by dogs.....	597
" persons bitten by cats.	14
" dogs bitten by dogs.....	101
" cats bitten by dogs	2
" original inspections	609
" reinspections	673
" final inspections ..	633
" dogs destroyed	105
" cats destroyed ..	-
" dogs sent to Humane Society and Dead Animal Contractor and destroyed.....	104
Number of cats sent to Humane Society and Dead Animal Contractor and destroyed.....	-
Number of dogs and cats in observation during year ..	75
" hours in court ..	37
Total number of inspections made ..	1,522

REPORT OF DISINFECTING CORPS 1913 HOUSES QUARANTINED.

Whooping Cough, including Membranous Croup placarded ..	1,078
Scarlet Fever, placarded.	931
Typhoid Fever, not placarded	214
Cerebro Spinal Meningitis, not placarded....	17
Infantile Paralysis, not placarded ..	23
Total number of houses ..	2,843

DISINFECTIONS

Diphtheria, including Membranous Croup.....	1,336
Scarlet Fever ..	879
Tuberculosis	391
Cerebro Spinal Meningitis.....	14
Infantile Paralysis.	15
Specials ..	1,218
Total number of houses.	3,853

Number of rooms disinfected...	12,258
" " cubic feet air space.....	12,258,000
" " control tests made.	1,442
" " visits to houses under quarantine ..	2,824
" " nuisances found existing	99
" " funerals supervised	42

REPORT OF INSPECTOR NURSES FOR YEAR 1913.

Number of visits ..	3,473
" " patients now on hand .	3,687
" " new patients	576
" " patients sent to hospitals	120
" " houses reported for disinfection..	73
" " houses reported for sanitary inspection.	18
" " deaths ..	85

CITY DISPENSARY AND OUTDOOR POOR CONTINGENT
PERSONS TREATED AT THE FOLLOWING CLINICS

MONTH	Medical Surgeon	Skin Diseases	Children's Diseases	Diseases of Women	G. U. Organs	Throat and Nose	Nervous System	Vaccinations	Tooth Extractions	Minor Operations	Total Number Treated	Chloroform
January	984	838	279	356	8	24	1	20	14	20	3,387	4,302
February	814	915	298	129	90	286	24	252	193	80	3,125	4,118
March	800	821	341	118	89	293	16	201	211	54	3,000	4,130
April	782	728	315	124	78	350	4	137	211	90	2,899	4,604
May	694	77	297	140	171	68	2	139	130	72	2,910	3,306
June	705	659	292	194	103	481	27	113	174	40	2,914	4,022
July	806	68	276	239	4	434	2	101	138	12	2,186	4,764
August	807	61	311	290	183	389	35	120	210	25	3,120	4,382
September	808	568	285	140	460	30	114	274	30	10	3,124	4,308
October	636	707	331	110	84	444	44	147	264	33	3,086	4,736
November	781	571	219	113	67	412	6	169	163	20	2,882	3,440
December	646	487	271	165	61	359	91	23	200	11	2,648	3,506
Totals	8,664	8,224	3,556	2,088	1,210	4,791	402	1,802	2,466	406	36,637	41,677

Number of Syphilitic cases treated, 112.

PATIENTS SENT TO THE FOLLOWING HOSPITALS.

MONTH	City	St. Michael's	St. Barnabas'	St. James'	German	Beth Israel	Women's and Children's	Crippled Children	Eye and Ear Infirmary	Babies' Hospital	Fifth Ave. Day Nursery	Tuberculosis Sanitarium	Total
January	60	6	10	8	11	3	2	4	14	8	0	16	142
February	39	.	11	6	13	11	5	1	13	15	0	17	139
March.....	61	10	9	5	9	8	3	1	12	21	0	14	173
April	63	4	13	8	10	11	1	2	6	23	1	22	179
May.....	75	5	8	4	8	4	4	3	11	10	0	16	148
June.....	72	7	7	4	9	4	4	0	13	25	0	20	165
July.....	59	6	16	6	9	5	7	0	5	48	2	12	175
August.....	44	6	6	7	5	5	4	0	4	24	1	10	116
September	38	3	8	5	4	11	5	1	10	26	1	9	124
October.....	43	3	6	7	6	8	3	1	10	16	0	8	111
November.....	52	6	11	11	11	11	5	0	7	16	1	14	145
December.....	46	3	10	4	11	12	4	1	18	8	0	13	130
Totals	652	65	115	75	106	96	53	16	123	240	6	171	1,698

NUMBER OF DISTRICT PRESCRIPTIONS DISPENSED

DISTRICT	Jan	Feb	Mar	April	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Total
First	37	79	6	56	24	21	6	7	2	29	44	11	484
Second	22	49	88	39	17	17	62	27	28	18	24	4	395
Third	41	29	64	57	26	24	42	49	22	13	30	4	401
Fourth	31	22	47	21	10	21	40	20	32	11	7	16	278
Fifth	4	24	48	35	18	13	47	19	21	12	12	7	260
Sixth	8	23	11	25	14	16	34	26	17	8	18	1	275
Seventh	7	2	6	4	5	3	32	24	9	18	23	0	203
Eighth	54	12	50	63	14	29	0	0	0	0	0	0	222
Ninth	20	18	13	3	24	26	0	0	0	0	0	0	180
Tenth	24	9	28	3	19	24	0	0	3	0	0	0	150
Eleventh	28	0	54	28	34	30	0	0	0	0	0	0	204
Twelfth	56	55	8	46	8	34	0	0	0	0	0	0	307
Totals	64	484	648	562	207	68	110	214	161	169	158	13	3,566

RECAPITULATION

Total number of patients treated	36,024
Total number of prescriptions	53,213
Total number of patients sent to hospitals	1,720

SUMMARY OF SERVICES RENDERED BY DISTRICT PHYSICIANS

	Dr. Hood.	Dr. Hill	Dr. Epler.	Dr. V. N. Hill	Dr. Pinnco,	Dr. Hirsch- berg,	Dr. Weiss,	Dr. Rode- mann,	Dr. Matheke,	Dr. Jedel,	Dr. Broad- nax,	Dr. Fischer
	1st Dist	2nd Dist	3rd Dist	4th Dist	5th Dist	6th Dist	7th Dist	8th Dist	9th Dist	10th Dist	11th Dist	12th Dist
Actual number of houses visited	102	350	647	238	216	111	500	161	131	257	210	200
Actual number of families visited	102	270	678	200	211	100	608	175	130	250	200	200
Number of sick prescribed for	100	208	706	254	241	87	600	202	103	279	208	361
Number of sick treated by others	2	4	3	4	5	9	2	5	0	1	1	16
Total number of visits made	200	266	703	258	246	232	1013	207	103	280	209	377
Number sent to hospital	10	20	50	34	21	12	50	22	9	50	47	90
Number of deaths	3	7	12	0	2	4	9	3	2	3	5	5
Total	580	1,217	3,368	1,180	1,097	565	2,908	930	1,100	1,312	1,770	1,613

RECAPITULATION

DISTRICT	Actual Number of Houses Visited	Actual Number of Families Visited	Sick Prescribed For	Found Treated by Other Physicians	Total Number of Visits Made	Number Sent to Hospital	Number of Deaths
First	102	102	102	2	266	10	3
Second	350	350	367	4	502	32	7
Third	647	678	702	3	1,195	79	12
Fourth	238	250	251	3	401	31	
Fifth	216	211	211	9	391	21	2
Sixth	161	100	87	9	252	12	4
Seventh	577	598	650	2	913	69	9
Eighth	164	175	202	5	359	22	3
Ninth	131	120	123		315	25	2
Tenth	257	259	279		584	54	5
Eleventh	261	210	278	1	759	52	3
Twelfth	285	292	361	16	581	90	5
Totals	3,442	3,378	3,649	56	6,609	500	55

REPORT OF MEDICAL INSPECTION OF PAROCHIAL SCHOOLS

There are twenty-three parochial schools in the City of Newark, which are divided into five districts. Five District Physicians are detailed as Medical Inspectors of Parochial Schools, whose duties are to visit the parochial schools daily between the hours of 9 and 11 A. M., and make daily reports to the Health Officer.

1st DISTRICT—DR. H. C. POVEY Schools: St. James', Lady of Mt. Carmel, St. Benedict's, St. Aloysius', St. Mary Magdalene's

2nd DISTRICT DR. H. G. McBRIDE—Schools: St. Columba's, St. Bridget's, St. Mary's, St. Phillip's, St. John's, St. Patrick's

3rd DISTRICT—DR. M. J. COFFEY—Schools: St. Michael's, St. Lucy's, St. Augustine's, Sacred Heart, St. Rose of Lima's

4th DISTRICT DR. P. J. CLARKE Schools: St. Joseph's, St. Antoninus', Sacred Heart, Vailsburgh.

5th DISTRICT DR. D. R. CAMPBELL Schools: St. Stanislaus', St. Peter's, St. Rocco's, St. Anne's

Report of Medical Inspection of Parochial Schools for months of January, February, March, April, May, June and July, 1913:

Number of schools visited daily.. .. .	23
Number of visits made during seven months.....	2,829
Number of pupils examined Male	4,321
Number of pupils examined—Female	3,754
Total number of pupils examined.....	8,075

Number of pupils excluded from school.	178
Number of physical examinations—Male	279
Number of physical examinations—Female	81
Total number of physical examinations	660
Diphtheria	2
Measles	19
Mumps	5
Skin Diseases	106
Scabies .	10
Erysipelas .	3
St. Vitus' Dance	9
Chicken-pox	4
Tuberculosis	1
Typhoid Fever	1
Contagious Eye Disease	21
Ringworm	24
Suppurative Ear Diseases	8
Tonsilitis	14
Bitten by dog	1
Vermis	22
Other diseases	412
Total	836
Number of vaccinations	1,703
Number of pupils advised to seek treatment	194
Class-rooms inspected	1,433
Class rooms disinfected	9
Number of cultures taken	2

RECEIPTS AND DISBURSEMENTS OF THE DEPARTMENT OF HEALTH FOR YEAR 1913

Total Receipts, 1913.....	\$164,302.90
Total Disbursements, 1913	164,302 00
Balance available January 1st, 1914	

RECEIPTS

Appropriations by Common Council	\$149,760 08
Penalties collected by courts	349 75
	\$150,109.83

OFFICE RECEIPTS—SANITARY DIVISION.

Animal Permits	\$ 71 90
Chicken Permits	2 44 00
Chicken Slaughter House Permits	78 00
Ice Licenses	600 00
Ice License Plates	139 00
Milk Licenses	3,132 00
Plumbing Plan Permits	4,116 00
Scavenger Licenses	20 00
Scavenger Permits	3 00
Vaccine Sales	163.42
	\$ 10,517 32

SUNDRIES—SANITARY DIVISION.

Heating Top Floors, Office Building..	\$ 309.69
Fines Collected (Milk Cases)...	1,501 83
Salary Refund	11.40
Refund Reporting Contagious Diseases	15 41
Refund Expenses	2 50
Refund Petty Cash.	8 74
Refund on Electric Light...	41 38
	\$ 1,961.86

BACTERIOLOGICAL DEPARTMENT

Antitoxin Sales	\$ 865.00
Bacteriological Examination	175 00
Rabies Treatment	\$ 1,532 70

TUBERCULOSIS SANATORIUM.

Sale of Thermometers..	\$ 111.00	
Use of Telephone	9.50	
Salary Refund	4.84	
Sale of Grease..	28.60	
Sale of Scrap	1.75	
Sale of Fruit	25.50	
		181.19
Total		\$164,302 90

DISBURSEMENTS—SALARIES.

SANITARY DIVISION

Health Officer	\$ 5,000 00	
Clerks (5)	6,652 60	
Stenographers (2)	1,700.00	
Superintendent Bureau Contagious Diseases. .	1,524.00	
Chemist	2,496.00	
Telephone Operator	540.00	
Veterinarian	2,524.00	
Meat Inspector	1,000 00	
Food and Drug Inspectors (4)	5,548.00	
Detailed Inspectors (2)..	3,048.00	
Chief Plumbing Inspector....	1,700 00	
Plumbing Inspectors (5).	7,620.00	
Sanitary Inspectors (20)...	23,425.00	
Meteorologist	120.00	
Inspector Nurses (3)....	2,152 50	
Janitor	840.00	
Pathologist	250 00	
		\$ 66,140.10

HEAT, LIGHT, RENT

Coal	\$ 476 21	
Wood	1 00	
Electric Light	718 31	
Gas	1 67	
Rent of Offices	3,866 76	
		4 763 82

TELEPHONES

Offices	\$ 1,282.66	
Health Officer's Residence.....	68.55	
	<hr/>	1,351.21

FURNITURE AND FIXTURES

Ash Cans	\$. 8.95	
Carpets	429.98	
Directories	22.00	
Desks and Chairs	284.00	
Hammer .. .. .	.50	
Milk Case	13.00	
Map of Essex County	16.00	
Mimeograph	80.00	
Typewriters (2)	258.03	
Tables	85.50	
	<hr/>	1,197.96

IMPROVEMENTS AND REPAIRS.

Batteries	\$ 1.00	
Repairing Chairs	8.00	
Hardware	7.51	
Repairing Locks	1.25	
Erecting Awnings	8.50	
Garden Plants	6.65	
Plumbing Work	6.10	
Varnish	6.01	
Covering Tables	25.58	
	<hr/>	70.60

TRAVELLING EXPENSES

Car fares	\$ 127.85	
Scoring Dairies	345.57	
Inspecting Water Sheds.....	144.70	
Expenses of Legislative Committee to Tren- ton during the session of the Legislature..	221.03	
Attending Convention of American Health		

Association at Colorado Springs	350.00	
Attending Convention of American Veterinarians' Association at New York.....	40.00	
Attending Convention of Dairy and Milk Inspectors' Association at Chicago	100 00	
	—	1,329.15

JANITORS' SUPPLIES.

Sweeping Compound	\$	9 00
Soap		2.83
Brooms and Brushes		2.51
Ammonia		1.18
Sapolo .....		.84
Dutch Cleanser .....		.50
Gold Dust		1.14
Clubs		1 96
Clubs		7 01
Master		1 73
Master		1 40
Master		33
Scrub Women's Services (New Building)....		59.40

91 89

MISCELLANEOUS SUPPLIES AND EXPENSES.

Milk Tester	10 23
Bond Premium	12 00
Sprinkling Street	14 00
Lemonade	1.20
Ice License Signs	60 00
Copies of Legislative Bills	25.00
Milk License Signs	10 00
Auto Hire	2 00
Cab Hire	2 00
Spitting Signs	15 00
Advertising Ordinances	62.12
Drinking Cups (Paper)	37 00
Blueing	5 57
Badges	13 00
Printing Annual Reports	21.40
Dues, New Jersey Sanitary Association	2 00
Brass Plates	12 00
cc	10 00

BOARD OF HEALTH.

41

Typewriter Case	10 00	
Postage Stamps	543 04	
Auto License	9 50	
Matches	3 90	
Food Samples	19 84	
Freight and Express.....	6 15	
Telegrams	4 65	
Auto Supplies and Maintenance	690 46	
Towel Supply	27 75	
Printing and Stationery	2,070 90	
Twine	1 80	
Sputum Cups	39 34	
Insurance	23 40	
Inspecting Typewriters	10 75	
Flashlight	2 70	
Kerosene	1 05	
Bottles and Corks	41 87	
Lecture	25 00	
Uniform Buttons	10 00	
Reporting Contagious Diseases	970 75	
	<hr/>	6,360 87
Total for Sanitary Department.....		\$ 81,305 60

DISPENSARY—SALARIES

Apothecary	\$ 2,300 00	
Assistant Apothecary	1,900 00	
Dentist	300 00	
Nurse	720 00	
Janitor	720 00	
District Physicians, 2 (6 part time)	4,560 00	
District Physicians Detailed Medical Inspectors to Parochial Schools (5), 7 months ..	1,400 00	
	<hr/>	\$ 11 900 00

LIGHT AND HEAT

Coal	\$ 243 75	
Wood	7 63	
Electric Light	19 50	
Gas	11 40	
	<hr/>	283 28

FURNITURE AND FIXTURES

Cushions	\$ 6.00	
Filing Cabinets	50.25	
Doctors' Gowns	39.00	
	-	95.25

IMPROVEMENTS AND REPAIRS.

Plumbing Work	\$ 25 30	
Electrical Supplies	9.58	
Repairing Lights	1.25	
Repairs to Surgical Instruments.	2.75	
	-----	38 88

MISCELLANEOUS SUPPLIES AND EXPENSES

Drugs	\$ 2,563.42	
Bandages, Plasters and Surgical Supplies	885.63	
Vaccine Points	455 00	
Ice	39.18	
Typewriter Rent	2.00	
Telephone	95.95	
Janitors' Supplies	7.71	
Towel Supply	16.27	
Laundry Work	41.41	
Disinfectants	21.64	
Printing and Stationery	268.00	
Brooms	3.50	
Tape Measure	1.67	
Expenses of Relief Nurse	7 80	
Muslin	3.25	
Bottles	28.51	
	-----	4,440.94

Total for Dispensary... . \$ 16,758.37

DISINFECTING CORPS SALARIES.

Chief of Corps	\$ 1,700.00	
Inspectors (10)	12,000 00	
	-----	\$ 13,700 00

MISCELLANEOUS SUPPLIES AND EXPENSES.

Disinfectants	\$ 626.43
Cotton Batting	169 99
Car fares ..	2.20
Printing and Stationery.....	87.50
Burners	2.00
Hardware	5.45
Sponges	13.24
Gauze	12.60
Paste	1.00
Bottles	11.77
Oilers	1.00
Repairing Generator	1 75
Twine	1.80
	<hr/> 936 73
Total for Disinfecting Corps.....	\$ 14,636.73

BACTERIOLOGICAL LABORATORY—SALARIES.

Bacteriologist	\$ 4,500.00
Assistant Bacteriologist.....	1,600 00
Second Assistant Bacteriologist	1,524.00
Culture Collectors (2).....	1,845 16
Porter	465.00
	<hr/> \$ 9,934.16

STABLE EXPENSES

Board of Antitoxin Horses (8)	\$ 2,626 43
Horse Shoeing	141 50
Horses (3) (Exchange)	49 00
Disinfectant	8 84
Boots	2 50
	<hr/> 3,274.27

MISCELLANEOUS SUPPLIES AND EXPENSES.

Rabies Virus	\$ 330 00
Express	6.37
Paraffin	5 00
Postage Stamps	190.00
Messenger to New York—109 trips.....	81.75

Antitoxin Syringes	925 00
Guinea Pigs and Rabbits	286.75
Filing Cabinet	10.10
Slide Holders	18 72
Needles	1.80
Rubber Tubing	3.82
Mailing Boxes	176 04
Glass Slides	15.75
Chemicals	15.85
Apparatus	549 81
Tools	2.60
Reeds	5.50
Repairing Incubator	61.17
Labels	43 35
Shellac	3.15
Printing and Stationery	388 25
Bottles	45 56
	<hr/> 3,166 34

Total \$ 16,374 77

CHILD HYGIENE DEPARTMENT SALARIES.

(Five months—Started August 1, 1913)

Director	\$ 700.00
Physician	125 00
Clerk	280.00
Nurses and Teachers (4)	980 00
Temporary Help	111 75
	<hr/> \$ 1,996.75

MISCELLANEOUS SUPPLIES AND EXPENSES.

Books	46 92
Printing and Stationery	271.63
Surgical Appliances	29 35
Advertising	15 60
Scale	13.20
Index Trays	4 00
Maps	4 00
Car Fares	24 75
Express	4 25
Postage	10 77

Chart Pins	30.00
Seals	10.20
Filing Cabinets	53.45
Typewriter	50.00
Towel Supply	1.35
Chiffarobe	27.50
Costumer	6.50
Rug	20.70
Slides .. .. .	.50
Calomel .. .. .	.43
Telephone	12.83
Chairs	50.73
Desk	21.00
Surgical Supplies	2.20
Painting	4.00
Table	18.00
	- - 749.87

Total for Child Hygiene Department. \$ 2,746.62

RECAPITULATION.

Sanitary Department	\$ 81,305.60
Disinfecting Corps	14,636.73
Dispensary	16,758.37
Bacteriological Laboratory	16,374.77
Child Hygiene Department.. .. .	2,746.62
Tuberculosis Sanatorium (see separate report)	32,480.81
	\$164,302.90

REPORT
OF THE
Division of Bacteriology

REPORT OF DIVISION OF BACTERIOLOGY

Mr. D. D. Chandler, Health Officer

DEAR SIR—Herewith is respectfully submitted the report of the Division of Bacteriology for the year ending December 31, 1913.

The routine work of the division is of such a nature that the character and amount of work performed during the year can be most easily presented in tabulated form.

The tables present a convenient method of comparing one year's work with another and a comparison of 1913 with previous years will show a marked increase in the number of specimens examined.

Three very important innovations were taken up at the laboratory last year, the first being the manufacture and distribution of typhoid vaccine, second, the examination for physicians of specimens from cases of suspected specific catarrhal infection, third, the opening of a serological laboratory under the direction of Dr. H. S. Martland for the Wassermann tests. It would seem that the action of the Board in taking these steps in advance has been appreciated by the Medical Profession, if we may judge by the number of specimens sent in for examination.

The subject of rabies in human beings and animals demanded a large measure of attention, as we find from the records that 612 persons were bitten during the year. It is somewhat of a relief, however, to learn that when these cases

were carefully investigated by the detailed inspector, it was deemed necessary for only 41 persons to undergo the discomfort of taking P. S. C. treatment, and these persons were almost all victims of 17 dogs that were found to be rabid.

A curious feature of the rabies question is that during May, June, July and August not a case of rabies came to our notice in Newark, and February is the month with the largest number to its credit. This is not in accordance with the popular belief that rabies is a disease of 'dog days.'

The following table shows the routine work of the laboratory of 1913:

BACTERIOLOGICAL LABORATORY RECORD FOR 1913

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Diphtheria—													
Primary cultures examined	833	689	999	80	580	599	104	399	508	490	669	701	7,060
Fine cases	1.1	119	1.3		14	73	53	67	57	83	123	10	1,082
Total number of cultures examined	1,034	884	1,002	70	650	672	511	484	477	573	841	746	8,142
Diphtheria Antitoxin													
Number of doses produced	268	331	542	756	0	374	395	0	307	483	320	636	4,412
Number of doses distributed	118	192	498	479	395	294	180	334	303	290	480	518	4,674
Tuberculosis—													
Specimens of sputa examined.....	265	232	253	240	265	184	186	208	186	184	191	226	2,620
Specimens containing tubercle bacilli	58	57	60	64	70	62	62	66	50	59	56	56	720
Blood examinations—typhoid and malaria	140	59	98	91	102	70	120	113	91	115	82	84	1,137
Water examinations	26	15	9	70	34	40	37	21	27	22	22	20	342
Milk examinations	77	66	88	88	99	90	20	108	119	77	55	19	1,492
Disinfection tests	144	173	145	140	121	110	88	68	64	119	128	150	1,410
Rabies—													
Persons given antirabic treatment	4	12	2	—	5	0	1	0	4	3	3	5	41
Suspected animals examined	5	8	3	5	1	2	3	—	3	5	5	5	43
Animals found infected	1	0	1	—	0	0	0	0	1	2	2	2	17
Persons bitten by animals and the cases investigated by detailed inspector	32	27	34	50	82	79	60	23	50	26	28	50	612

DIPHTHERIA AND ANTITOXIN.

The use of antitoxin in the treatment of diphtheria has now become so general that almost all cases of the disease receive the serum.

The following table shows the result of treating diphtheria with and without antitoxin in Newark and covers a period of 19 years, the first 15 of which are grouped into 5-year periods.

DIPHTHERIA

Antitoxin Used				Antitoxin Not Used			
Period	Cases	Deaths	%	Period	Cases	Deaths	%
1895] to } 1900]	3,296	357	10.8	1895] to } 1900]	2,444	528	21.6
1900] to } 1905]	5,070	365	7.2	1900] to } 1905]	1,289	256	19.8
1905] to } 1910]	5,348	323	6.0	1905] to } 1910]	622	144	23.0
Year				Year			
1910	1,272	81	6.3	1910	134	21	18.9
1911	1,247	56	4.5	1911	92	18	19.5
1912	1,065	66	7.5	1912	93	15	16.1
1913	1,489	89	5.97	1913	105	21	20.0

TUBERCULOSIS

The total number of specimens of sputa received from suspected cases of tuberculosis during the year was 2,620, and in 720 of these the tubercle bacilli were found. The large majority of the latter were cases that were reported for the first time, and were therefore, probably new cases of the disease, showing that fresh victims are being constantly infected despite all our efforts to check the disease.

The following analysis of the laboratory records on this subject has been prepared by the Assistant Bacteriologist, Dr. Thomas H. Ripley:

To R. N. Connolly, M. D., Bacteriologist.

DEAR SIR: The number of examinations of sputa made at the laboratory is constantly increasing. The records for the year 1913 show that 2,620 examinations were made from suspected cases of consumption, which is the largest number since the laboratory was established. The number of positive cases, however, was not so great. In 720 tubercle bacilli were found and 1,900 were negative.

The following table for the past 15 years shows the total number of examinations made and the number of positive and negative cases found, together with the percentage of positive cases recorded.

SPUTA EXAMINATIONS

YEAR	Positive	Negative	Total	Percentage of Positive Cases
1898	312	378	690	45
1899	308	491	799	38
1900	380	623	1,003	37
1901	366	594	960	38
1902	796	746	1,542	51
1903	1,030	1,041	2,071	49
1904	804	959	1,763	45
1905	753	1,021	1,774	42
1906	740	1,385	2,125	34
1907	751	1,425	2,176	34
1908	727	1,380	2,107	34
1909	858	1,663	2,521	34
1910	771	1,746	2,517	30
1911	686	1,649	2,335	29
1912	797	1,820	2,617	30
1913	720	1,900	2,620	27

It will be noticed that the number of positive cases was about the same, while the negative cases and total examinations are increasing, which is probably due to the fact that physicians are availing themselves more and more every year of the work of the laboratory in making an early diagnosis of the disease.

The following table for the last eight years shows the sex and time of life in which tuberculosis occurs:

AGE AND SEX IN TUBERCULOSIS.

YEAR	1 to 10		10 to 20		20 to 30		30 to 40		40 to 50		50 to 60		60 to 70		70 to 80		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1897	0	0	34	29	116	73	7	54	71	1	27	1	8	1			527
1898	0	1	92	11	116	1	11	21	2	20	71	0	0	1			547
1899	0	1	46	36	128		2	68	12		1	5					306
1900	2	1	28	32	177	82	137	6	111	0	39	8	18	7			706
1901	0	0			23	7	11	80	2	22	75	1		5			247
1902	0	2	3	13	132	17	127	3	69	19	2	0	1	6			440
1903	2	1	30	34	11	0	1	77	8	18	51	4	10				714
1913	0	0	2	2	33	76	170	70	4	28	40	6	12	6			655
Totals	4	6	280	111	1001	544	367	450	692	18	398	99	77	49			4754
Times	10	44			1	08		1,117	740		327		117				
Percent	97	94			1	4		30	16		96.9		95.4				

The above table shows that the greatest number of cases occur between the ages of 20 and 40.

Respectfully submitted,

DR THOMAS H. RIPLEY,

Assistant Bacteriologist.

BACTERIOLOGICAL EXAMINATION OF SAMPLES OF
ICE CREAM.

During the summer months of 1913 examination of 52 samples of ice cream was made, and the maximum number of bacteria found in any one sample was 210,000,000, and the minimum number was 300,000 bacteria per C.C

The following table groups the samples according to the number of bacteria found, and the majority of the samples contained between one million and fifty million bacteria per cubic centimeter

ICE CREAM

	Bacteria per CC
samples contained over 100,000,000	.
4 samples contained 50,000,000 to 100,000,000	"
43 samples contained 1,000,000 to 50,000,000	" " "
1 sample contained 500,000 to 1,000,000	"
1 sample contained less than 500,000	.

TYPHOID VACCINE.

At the beginning of 1912 the President, Dr. H. C. H. Hetseld, recommended that the Board of Health prepare and distribute typhoid vaccine and acting upon instructions from the Board the preparation of typhoid vaccine was begun and the following circular of information was printed for distribution:

DEPARTMENT OF HEALTH.

Division of Bacteriology,

Newark, N. J

TYPHOID VACCINE.

The value of typhoid vaccine as a prophylactic against typhoid fever is now so generally acknowledged by authorities that the Board of Health of this city has determined to supply the vaccine free of charge to physicians who desire to use it for immunizing residents of Newark

The vaccine can be obtained at the bacteriological laboratory at the City Hospital and will be given only to physicians who furnish the name, address and such other data as the board may require regarding the person for whom the vaccine is required.

DIRECTIONS FOR THE USE OF TYPHOID VACCINE.

In order to obtain a satisfactory degree of immunity, three injections of the vaccine are required. The interval between injections should be seven to ten days. The first dose for the average adult is 50 million bacilli, and the second and third doses consist of 1,000 million each. For those employed in business successive Saturdays is a convenient time. The injection should be given subcutaneously over the deltoid. The injection should be given about 4 P. M., so that if a reaction occurs it will be during the night.

The probability of a reaction should be explained at the time of treatment. The injection causes some pain which quickly subsides.

After a lapse of several hours a local and general reaction may develop. The local reaction consists of a red and tender area which may be several inches in diameter and local lymph nodes may be involved. The general reaction consists of headache, malaise and a rise in temperature. This however is absent in most cases and is severe in less than one per cent. of those injected and seldom lasts more than twenty-four hours.

The Board of Health has made a rule that a sample of blood and also of the urine be furnished for examination before the first injection is given, as only persons in ordinary good health should be injected.

It is recommended when one member of a family becomes infected with typhoid fever that the rest of the household be vaccinated immediately.

(Signed)

HERMAN C. H. HEROLD, M. D.,

President

DAVID D. CHANDLER,

Health Officer and Secretary

The vaccine was ready for distribution in June and since that time 27 doses have been dispensed of and 93 persons have been vaccinated.

The following report on the subject has been prepared by Dr. H. A. Tarbell, Assistant Bacteriologist:

To Dr. R. N. Connolly, Bacteriologist:

The success following preventative inoculation of Typhoid Vaccine in the U. S. Army and Navy has prompted the Board of Health to introduce it in general use in Newark. During the year the Laboratory has prepared the vaccine as routine work, and many persons have taken advantage of the product. As in the case of Diphtheria Antitoxin, it has been supplied free of charge to all physicians who apply for it, providing the vaccine is to be administered to residents of the city.

Among those who have been successfully inoculated are nurses and physicians in hospitals, members of families in which the disease has already claimed a patient, and persons about to travel or visit locations known to be infested more or less with typhoid fever. The knowledge that one is protected from such a malady should more than repay him for the slight inconvenience incident upon receiving the inoculations.

In the manufacture of the vaccine we select a pure culture of typhoid bacilli, attenuated by years of growth on artificial media. Several tubes of agar-agar are then infected with the culture, and grown for twenty-four hours in the incubator. It is now examined with the microscope to exclude contaminating organisms, and to each tube a small amount of normal salt solution is added. The resulting emulsion is then scraped off the agar tubes and transferred to other vessels, when it is standardized by the familiar method of counting the bacilli in a known amount of emulsion and a like quantity of human blood. The vessels are now hermetically sealed, and heated in a water bath for one hour at 55° Centigrade. The vaccine is now tested for evidence of poisonous products by the growth of a mixture of the vaccine and on culture material to prove its sterility. We have been able to produce a complete immunity to the vaccine as shown by the agglutination reaction.

To test the susceptibility of fowls of three small yalcks one dose of 100 million and two doses of 1000 million killed bacilli. The first doses are to be administered subcutaneously in the area at the insertion of the Delta femur at intervals of 7 or 8 days. Blood tests will be made after the inoculation. Have shown very prompt agglutination of the vaccine with 2000 million cultures of typhoid bacilli.

This resultant immunity protects the individual for a period of three years or more, and may be repeated at the end of that time if desired.

It is to be hoped that physicians will use the vaccine more and more, for its value as a preventative is becoming universally conceded. The high rate of mortality of typhoid fever even in large cities should be a great argument for its more general use. It has been no uncommon thing in the past for nurses and physicians in attendance upon typhoid fever patients to succumb to it; such a happening now should be looked upon as little less than criminal and it is perhaps not too soon to urge compulsory inoculation of the vaccine in all institutions, etc., where many persons are confined.

Respectfully,

H. A. TARBELL, M. D.

BACTERIOLOGICAL EXAMINATION OF NEWARK CITY WATER SUPPLY.

The following series of tables give in detail the results of bacteriological examination of the Pequannock water at the various sampling points for 1913.

The fermentation tests with glucose bouillon were repeatedly checked during the year with lactose bile, and the two media graded each other with almost perfect regularity. That is to say whenever the glucose bouillon showed the presence of fermenting germs, lactose bile gave the same result.

The tables show the usual seasonal variations in the water, also that the water has been singularly free from bacterial pollution during the entire year.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913.

Samples from Oak Ridge Stream, above Canton Stream.

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 7	450	—	—	—	—	—	+
Jan. 22	530	—	—	—	—	—	+
Feb. 18	160	—	—	—	—	—	—
Mar. 12	520	—	—	—	—	+	+
Mar. 25	190	—	—	—	+	+	+
Apr. 10	500	—	—	—	—	—	+
Apr. 30	950	—	—	—	—	—	+
May 11	1,660	—	—	—	—	—	+
May 21	2,230	—	—	—	—	—	—
June 11	1,030	—	—	—	+	+	+
June 27	95	—	—	—	—	+	+
July 9	2,250	—	—	—	—	+	+
July 23	1,730	+	+	+	+	+	+
Aug. 6	2,000	—	+	+	+	+	+
Aug. 19	2,600	+	+	+	+	+	+
Sept. 10	870	—	+	+	+	+	+
Sept. 26	1,550	—	—	—	+	+	+
Oct. 15	1,175	—	—	+	+	+	+
Oct. 25	1,290	—	—	—	—	+	+
Nov. 12	1,470	—	—	—	—	—	+
Nov. 26	560	—	—	—	—	—	+
Dec. 10	240	—	—	—	—	—	—
Dec. 23	310	—	—	—	—	+	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913—Continued.

Samples from Clinton Stream, above Oak Ridge Stream

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 7	500	—	—	—	—	—	+
Jan. 22	280	—	—	—	—	—	+
Feb. 18	320	—	—	—	—	—	+
Mar. 12	350	—	—	—	+	+	+
Mar. 25	24	—	—	+	+	+	+
Apr. 10	180	—	—	—	—	—	+
Apr. 30	610	—	—	—	+	+	+
May 14	1,210	—	—	—	—	+	—
May 27	99	—	—	—	—	—	—
June 11	350	—	—	—	+	+	+
June 26	1,200	—	—	—	—	+	+
July 9	1,800	—	—	—	—	—	—
July 23	1,870	+	+	+	+	+	+
Aug. 6	950	—	—	—	—	—	+
Aug. 19	1,470	+	+	+	+	+	+
Sept. 10	70	+	+	+	+	+	+
Sept. 26	1,500	—	—	—	+	+	+
Oct. 15	1,300	—	+	+	+	+	+
Oct. 24	1,500	—	—	—	—	—	+
Nov. 12	1,000	—	—	—	—	—	—
Nov. 26	630	—	—	—	—	—	+
Dec. 10	190	—	—	—	—	—	+
Dec. 23	190	—	—	—	+	+	+

The sign (—) means no fermentation produced.
The sign (+) means fermentation produced

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913—Continued.

Samples from Kanouse Creek, above Pequannock River

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1 20	1 10	1 5	1 2	1 C. C.	5 C C.
Jan 7	720	—	—	—	—	—	+
Jan 22	1,133	—	—	—	—	—	+
Feb 18	410	—	—	—	—	—	—
Mar. 12	380	—	—	—	—	+	+
Mar. 25	150	—	—	—	—	+	+
Apr 10	640	—	—	—	—	—	+
Apr 30	860	—	—	—	—	+	+
May 14	1,950	—	—	—	—	+	+
May 27	1,760	—	—	—	—	—	+
June 11	1,160	—	—	+	+	+	+
June 26	1,000	—	—	—	+	+	+
July 9	2,700	—	—	—	+	+	+
July 23	930	+	+	+	+	+	+
Aug 6	1,400	—	—	—	—	+	+
Aug 19	1,880	+	+	+	+	+	+
Sept 10	980	—	+	+	+	+	+
Sept 26	1,100	—	—	—	+	+	+
Oct 15	140	—	—	—	—	+	+
Oct 29	1,080	—	—	—	—	—	+
Nov. 12	1,240	—	—	—	—	—	+
Nov. 26	280	—	—	—	—	—	—
Dec 10	210	—	—	—	—	—	+
Dec. 23	240	—	—	—	—	+	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913 Continued.

Samples from Echo Lake Stream, above Pequannock River

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan 7	660	—	—	—	—	—	—
Jan 22	150	—	—	—	—	—	—
Feb 18	310	—	—	+	+	+	+
Mar 12	620	—	—	—	—	—	—
Mar 25	490	—	—	+	+	+	—
Apr 10	270	—	—	—	—	—	—
Apr 20	500	—	—	—	—	+	—
May 10	170	—	—	+	+	+	—
May 27	570	—	—	—	—	—	—
June 11	800	—	—	—	—	+	+
June 26	1,500	—	—	—	—	+	+
July 9	2,300	—	—	—	—	—	—
July 23	1,230	—	—	+	+	+	+
Aug 6	1,450	—	—	—	—	—	—
Aug 19	800	—	—	—	+	+	+
Sept 10	190	—	—	+	+	+	+
Sept 26	780	—	+	+	+	+	+
Oct 15	410	—	—	—	—	—	+
Oct 29	1,000	—	—	—	—	—	—
Nov 12	850	—	—	—	—	—	+
Nov 25	450	—	—	—	—	—	—
Dec 6	230	—	—	—	—	—	—
Dec 13	170	—	—	—	—	+	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913—Continued.

Samples from Macopin Intake, at Gatehouse.

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 7	330	—	—	—	—	—	+
Jan. 22	390	—	—	—	—	—	+
Feb. 18	470						
Mar. 12	3.0		—	—	—	—	+
Mar. 25	1.0	—	—	+	+	+	+
Apr. 11	380	—	—	—	—	—	+
Apr. 30	1,200	—	—	—	+	+	+
May 14	2,150	—	—	—	—	+	+
May 27	1.0	—	—			+	+
June 11	330	—	—	—	—	+	+
June 26	950	—	—	—	+	+	+
July 9	1,150	—	—	—	—	+	+
July 23	1.66	—	—	+	+	+	+
Aug. 6	900	—	—	—	—	—	—
Aug. 19	1,190	+	+	+	+	+	+
Sept. 10	385	+	+	+	+	+	+
Sept. 26	550	—	+	+	+	+	+
Oct. 17	610	—		+	+	+	+
Oct. 29	1,170		—	+	+	+	+
Nov. 12	980	—	—	—	—	+	+
Nov. 26	210	—	—	—	—	—	+
Dec. 10	200	—					—
Dec. 23	260		—	—	—	+	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913 (Continued)

Samples from Cedar Grove Reservoir at Inlet Gatehouse

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	1
		20	10	5	2	C. C.	C. C.
Jan. 7	190	—	—	—	—	—	+
Jan. 22	15	—	—	—	—	—	+
Feb. 18	15	—	—	—	—	—	+
Mar. 12	200	—	—	—	—	—	+
Mar. 29	160	—	—	—	—	+	—
Apr. 10	200	—	—	—	—	—	—
Apr. 16	250	—	—	—	+	+	—
May 14	110	—	—	—	—	+	+
May 27	350	—	—	—	—	—	+
June 11	20	—	—	—	—	+	+
June 28	25	—	—	—	—	—	+
July 9	350	—	—	—	—	—	+
July 25	600	—	—	+	+	+	+
Aug. 6	310	—	—	—	—	—	—
Aug. 19	110	—	—	—	—	—	—
Sept. 19	130	—	—	—	+	+	+
Sept. 26	1	—	—	—	+	+	+
Oct. 15	280	—	—	—	—	—	—
Oct. 29	30	—	—	—	—	—	+
Nov. 7	500	—	—	—	—	—	—
Nov. 26	160	—	—	—	—	—	+
Dec. 10	150	—	—	—	—	—	—
Dec. 23	70	—	—	—	—	+	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK WATER DURING 1913—Continued.

Samples from Cedar Grove Reservoir at Outlet Gatehouse

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan 7	520	—	—	—		—	+
Jan 12	110	—	—	—		—	+
Feb. 18	160	—	—	—			—
Mar. 12	60	—	—	—		—	+
Mar. 25	100	—	—	—		—	—
Apr. 10	450	—	—	—	—	—	+
Apr. 30	310	—	—	—		—	—
May 14	40	—	—	—	—		+
May 24	80	—	—	—		—	—
June 11	70	—	—	—	—	—	+
June 26	170	—	—			—	—
July 9	490	—	—	—		—	+
July 23	480	—	—	+	+	+	+
Aug. 6	280	—	—	—		—	—
Aug 15	170	—	+	+	+	+	+
Sept 10	80	—	—	+	+	+	+
Sept 26	110	—	—	—	+	+	+
Oct 15	190	—	—				+
Oct 29	320	—	—			—	+
Nov. 12	460	—	—	—		—	—
Nov 26	80	—	—	—	—	—	—
Dec. 10	50	—	—	—		—	+
Dec 23	70	—	—	—		—	+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK WATER DURING 1913 Continued.

Samples from Belleville Reservoir at Inlet Gatehouse

1913	Bact. Per C.C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C.C.	C.C.
Jan. 7	280	—	—	—	—	—	+
Jan. 22	60	—	—	—	—	—	—
Feb. 18	110	—	—	—	—	—	—
Mar. 12	40	—	—	—	—	—	+
Mar. 15	130	—	—	—	—	—	+
Apr. 3	600	—	—	—	—	—	—
Apr. 8	210	—	—	—	—	—	—
May 11	60	—	—	—	—	—	—
May 27	40	—	—	—	—	—	+
June 1	140	—	—	—	—	—	+
June 26	120	—	—	—	—	—	—
July 5	60	—	—	—	—	—	+
July 23	320	—	—	—	+	+	+
Aug. 5	20	—	—	—	+	+	+
Aug. 15	90	—	—	—	—	—	—
Sept. 3	110	—	+	+	+	+	+
Sept. 6	20	—	—	—	+	+	+
Oct. 15	200	—	—	—	—	—	—
Oct. 19	20	—	—	—	—	—	—
Nov. 12	20	—	—	—	—	—	—
Nov. 20	10	—	—	—	—	—	—
Dec. 10	80	—	—	—	—	—	—
Dec. 15	50	—	—	—	—	—	—

The sign (—) means no fermentation produced

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913—Continued.

Samples from Bedville Reservoir, at Outlet Gatehouse

1913	Bact. Per C.C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes						
		1	1	1	1	1	5	
		20	10	5	2	C.C.	C.C.	
Jan 7	20	—						—
Jan 22	80	—	—	—				+
Feb 18	120	—	—	—				
Ma 12	70	—	—	—				+
Mar 25	60							+
Apr 16	300	—		—				—
Apr 30	80	—		—				+
May 11	100	—						—
May 24	80	—		—				—
Jun 11	100	—		—				+
Jun 25	90	—		—				—
July 9	310			—	—	—		—
July 23	150			—	+	+		+
Aug 6	200		—	—	—	—		—
Aug 19	100	—		—	—			
Sept 10	190	—	—	+	+	+		+
Sept 23	90		—		—			+
Oct 10	90	—		—		—		+
Oct 20	110	—	—	—	—	—		—
Nov 12	200	—	—		—			—
Nov 26	90			—		—		+
Dec 10	90			—	—			
Dec 25	130					—		+

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK
WATER DURING 1913—Continued.

Samples from Board of Health Office, 880 Broad Street

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 7	170	—	—	—	—	—	—
Jan. 22	80	—	—	—	—	—	—
Feb. 18	4	—	—	—	—	—	—
Mar. 12	130	—	—	—	—	—	+
Mar. 25	170	—	—	—	—	—	+
Apr. 10	330	—	—	—	—	—	—
Apr. 30	90	—	—	—	—	—	—
May 11	60	—	—	—	—	—	—
May 27	40	—	—	—	—	—	—
Jun. 11	10	—	—	—	—	—	—
June 26	100	—	—	—	—	—	—
July 9	60	—	—	—	—	—	—
July 23	10	—	—	—	—	—	+
Aug. 6	100	—	—	—	—	—	—
Aug. 19	10	—	—	—	—	+	+
Sept. 16	50	—	—	—	—	—	—
Sept. 29	150	—	—	—	—	—	+
Oct. 15	50	—	—	—	—	—	—
Oct. 29	120	—	—	—	—	—	—
Nov. 12	180	—	—	—	—	—	—
Nov. 27	30	—	—	—	—	—	—
Dec. 16	24	—	—	—	—	—	—
Dec. 23	20	—	—	—	—	—	—

The sign — means no fermentation produced

The sign (+) means fermentation produced.

BACTERIOLOGICAL EXAMINATION OF PEQUANNOCK WATER DURING 1913—Continued.

Samples from Laboratory Faucet, City Hospital.

1913	Bact. Per C. C.	Amount of Sample Causing Fermentation in Glucose Bouillon Tubes					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 7	230	—	—	—	—	—	+
Jan. 22	40	—	—	—	—	—	—
Feb. 18	90	—	—	—	—	—	+
Mar. 3	100	—	—	—	—	—	—
Mar. 12	100	—	—	—	—	—	+
Mar. 25	30	—	—	—	—	—	+
Apr. 10	250	—	—	—	—	—	—
Apr. 30	80	—	—	—	—	—	—
May 14	60	—	—	—	—	—	—
May 19	80	—	—	—	—	—	—
May 27	50	—	—	—	—	—	—
June 3	60	—	—	—	—	—	—
June 11	85	—	—	—	—	—	—
June 16	90	—	—	—	—	—	+
June 21	90	—	—	—	—	—	+
June 25	100	—	—	—	—	—	—
June 26	40	—	—	—	—	—	—
July 1	150	—	—	—	—	—	—
July 9	90	—	—	—	—	—	—
July 23	80	—	—	—	—	—	+
Aug. 6	110	—	—	—	—	—	—
Aug. 19	112	—	—	—	—	+	+
Sept. 10	70	—	—	—	—	—	+
Sept. 20	60	—	—	—	—	—	+
Oct. 15	150	—	—	—	—	—	+
Oct. 24	150	—	—	—	—	—	+
Nov. 12	160	—	—	—	—	—	+
Nov. 26	50	—	—	—	—	—	—
Dec. 10	40	—	—	—	—	—	—
Dec. 23	60	—	—	—	—	—	—

The sign (—) means no fermentation produced.

The sign (+) means fermentation produced.

The following table shows the annual average number of bacteria per C. C. in the Pequannock water at the various sampling points, together with the number of examinations made from each place during the last six years.

These examinations were made under practically the same conditions so that the results are comparable one year with another, and it may be noted that the general tendency at the various points, especially from the Millville Reservoir up into the watershed is toward a decrease in the bacteria content.

AVERAGE NUMBER OF BACTERIA PER CUBIC CENTIMETER IN THE PEQUANNOCK WATER AT THE SAMPLING POINTS FOR SIX YEARS

ORIGIN OF SAMPLES	1908		1909		1910		1911		1912		1913	
	Samples Ex- amined	Average Bacteria Per C.C.	Samples Ex- amined	Average Bacteria Per C.C.	Samples Ex- amined	Average Bacteria Per C.C.	Samples Ex- amined	Average Bacteria Per C.C.	Samples Ex- amined	Average Bacteria Per C.C.	Samples Ex- amined	Average Bacteria Per C.C.
Oak Ridge Stream, above Clinton Stream	21	227	21	1531	22	149	21	189	22	1899	23	1111
Clinton Stream, above Oak Ridge Stream	21	1830	21	1117	22	140	21	140	22	779	23	877
Kanouse Creek, above Pe- quannock River	21	254	21	2133	22	174	21	140	22	1261	23	1028
Echo Lake Stream, above Pequannock River	21	256	21	1116	22	256	21	1447	22	1016	23	746
Macopin Intake, at Gate- house	24	1350	21	1057	22	690	21	1252	22	500	23	733
Cedar Grove Reservoir, at Inlet Gatehouse	23	561	21	464	23	304	22	440	14	400	23	292
Cedar Grove Reservoir, at Outlet Gatehouse	21	250	22	313	25	260	22	208	26	287	23	208
Belleville Reservoir, at In- let Gatehouse	24	452	21	311	26	190	22	255	29	215	23	192
Belleville Reservoir, at Out- let Gatehouse	24	110	20	315	25	216	21	214	29	217	23	172
Board of Health Office, 880 Broad Street	24	62	21	95	27	99	22	152	32	188	23	99
Laboratory, Paquet City Hospital	26	82	21	117	28	106	22	118	67	152	30	95

Very respectfully,

RICHARD N. CONNOLLY, M. D.,

Bacteriologist.

Report of the Chemist

ANNUAL REPORT OF THE CHEMIST

To D. D. Chandler, Health Officer:

DEAR SIR:—I hereby submit my annual report for the year ending December 31, 1913.

MILK

As milk is our most important article of food and more easily made dangerous to health than any other, it has continued to occupy first place in the work done by the Food and Drug Inspectors and the Laboratory. The number of samples examined is over seventy per cent in excess of last year.

With two slight exceptions, in 1906 and 1907, the general average quality, as determined by the figure for total solids, has steadily declined year by year, for the last fifteen previous years, from 12.8% to 12.01%. This year it is most gratifying to note a marked improvement which is probably the direct result of the activity of the Food and Drug Department.

Considerable of the Chemist's time during the year was devoted to the new Milk Ordinance adopted by the Board December 2, 1913. It classifies the milk into grades according to sanitary condition of production, and bacterial content and follows closely the lines of progress in milk sanitation.

DIRT IN MILK.

Many cities have recently added the examination for visible dirt in milk to their routine tests. We have tested over one hundred samples in this way and found enough dirt, manure, etc., in many of them to prove this test to be a valuable indication of the care with which the milk has been handled.

The analyses made of milk have been classified and are given in the following tables:

CLASSIFIED TABLE OF MILK ANALYSES—Continued.

400 Samples having a percentage of Total Solids of 12.5 and above—Continued.

Average for Solids—12.98.

Average for Fat—3.99.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
12.3	3.70	12.75	3.80	12.94	3.60	14.50	6.60
12.3	3.80	12.62	3.50	12.79	3.70	13.25	3.80
12.4	3.60	13.85	5.20	12.65	3.60	13.00	4.00
13.00	3.70	12.81	3.60	12.81	3.50	12.58	3.60
12.80	3.80	13.07	4.00	12.69	3.50	13.02	3.90
12.30	4.00	12.60	3.50	12.61	3.80	12.89	3.90
12.72	3.00	12.56	4.00	12.52	3.80	12.62	3.50
12.51	3.00	12.59	3.60	12.71	3.70	13.20	4.50
12.00	3.50	12.61	3.80	13.10	3.90	12.69	4.00
12.5	3.40	13.35	4.00	13.10	3.90	12.62	3.40
12.92	4.20	12.70	3.70	12.55	3.70	12.52	4.40
12.72	3.80	13.20	4.20	13.55	4.60	12.45	4.20
13.30	6.00	13.05	3.80	12.75	3.50	13.00	4.20
12.68	4.40	12.82	3.80	12.84	4.00	13.59	3.80
13.82	3.60	13.30	4.00	12.84	4.00	12.99	4.00
14.70	6.00	14.10	5.20	12.65	3.60	12.68	3.80
13.10	4.50	12.82	3.70	12.65	3.50	12.63	3.70
12.70	3.60	14.00	4.60	12.82	4.40	13.14	4.00
12.60	3.50	12.95	3.90	13.59	4.50	13.10	3.90
12.50	3.80	12.70	3.50	13.45	3.90	13.04	3.20
12.60	4.00	12.91	4.00	12.68	3.80	12.65	3.60
12.50	3.60	13.84	6.20	12.90	3.80	12.52	3.80
13.10	3.80	12.70	3.50	12.52	3.80	12.59	4.00
12.61	4.40	12.77	4.00	12.55	3.70	13.29	4.00
12.55	5.70	12.65	4.20	12.75	4.00	12.56	3.20
13.51	3.50	13.15	4.00	12.54	3.50	13.56	4.30
12.05	5.00	12.55	4.10	12.71	3.70	15.34	6.10
13.20	5.70	13.15	4.20	13.58	4.30	13.21	4.10
12.2	4.00	12.85	4.00	12.92	4.00	13.45	4.20
13.20	4.00	12.85	3.60	13.06	4.00	13.10	3.80
12.85	5.00	12.92	3.90	13.77	4.40	12.75	3.80
13.12	4.20	13.54	4.60	12.98	3.70	12.89	4.10
12.71	3.60	12.95	3.80	12.84	3.70	12.93	4.00
12.85	4.00	13.29	4.00	12.97	4.30	12.54	3.50
13.10	3.90	12.85	3.70	13.15	4.00	13.25	3.80
12.80	4.00	13.64	3.70	13.45	4.20	13.15	4.00
12.50	3.60	12.73	3.60	12.52	3.60	14.10	5.00
12.7	3.60	13.13	4.10	12.72	3.60	12.65	3.60

CLASSIFIED TABLE OF MILK ANALYSES Continued.

499 Samples having a percentage of Total Solids of 12.50 and above—Continued.

Average for Solids 12.98.

Average for Fat 3.99

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
12.51	3.60	13.48	4.40	13.95	5.00	13.15	4.20
12.51	3.50	13.17	3.80	12.89	4.00	13.54	4.20
13.35	4.60	13.35	4.30	13.95	4.80	12.80	3.90
12.60	4.00	12.60	3.50	12.90	3.40	13.35	4.50
12.82	3.60	14.02	4.60	12.99	3.80	12.88	3.90
13.68	4.20	12.72	3.60	13.59	3.90	13.72	4.50
12.85	4.30	13.95	4.80	12.60	3.80	12.65	3.60
13.00	4.20	12.51	3.60	13.11	4.10	13.53	4.20
12.69	3.80	12.69	3.80	13.07	3.60	12.82	3.80
12.69	4.00	12.78	3.70	12.67	3.80	13.38	4.20
13.70	4.10	12.65	3.60	13.40	4.10	14.26	5.00
13.15	4.20	12.55	3.70	13.17	3.90	12.76	4.00
13.09	4.20	12.69	3.50	12.55	3.70	12.63	3.70
12.89	3.80	12.62	3.50	13.42	4.60	12.89	4.10
13.15	4.20	14.42	5.80	12.65	3.60	15.12	5.70
13.02	3.90	12.93	3.70	12.95	4.10	12.68	3.80
13.47	4.10	12.85	3.60	13.69	4.70	12.59	3.60
13.23	4.20	13.60	4.00	12.62	3.70	12.62	4.00
13.05	3.80	12.62	3.40	12.65	3.90	12.67	3.40
12.56	4.00	12.82	3.60	13.29	4.50	12.65	3.90
12.95	4.10	13.00	4.50	12.55	3.70	13.41	4.10
13.15	4.20	12.82	3.60	13.14	4.00	12.83	3.80
13.10	4.40	12.92	4.00	12.75	4.00	12.54	3.50
13.65	4.50	12.52	3.60	12.52	3.60	12.50	3.40

CLASSIFIED TABLE OF MILK ANALYSES—Continued

454 Samples having a percentage of Total Solids between 12.00 and 12.50

Average for Solids—12.5. Average for Fat—3.48.

[illegible]

CLASSIFIED TABLE OF MILK ANALYSES -Continued

54 Samples having a percentage of Total Solids between 12.00 and 12.50—Continued.

Average for Solids—12.24.

Average for Fat—3.48.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
12.33	3.40	12.24	3.50	12.05	3.40	12.14	3.60
12.35	3.60	12.25	3.20	12.41	3.70	12.15	3.30
12.08	3.30	12.35	3.40	12.38	3.80	12.05	3.70
12.00	3.40	12.41	3.70	12.05	3.70	12.45	3.30
12.20	3.40	12.21	3.60	12.14	3.60	12.16	3.50
12.19	3.40	12.34	3.80	12.09	3.60	12.38	3.80
12.25	3.80	12.15	3.50	12.40	3.50	12.13	3.60
12.13	3.60	12.23	3.80	12.49	4.00	12.34	3.20
12.05	3.40	12.09	3.50	12.05	3.40	12.39	3.50
12.19	3.80	12.02	3.50	12.41	3.70	12.23	3.40
12.12	3.10	12.01	3.60	12.04	3.20	12.26	3.40
12.03	3.20	12.12	3.40	12.47	3.70	12.23	3.50
12.15	3.30	12.01	3.60	12.24	3.50	12.39	3.80
12.19	3.20	12.14	3.30	12.20	3.40	12.20	3.40
12.15	3.30	12.49	4.00	12.47	3.70	12.33	3.50
12.25	3.80	12.31	3.50	12.18	4.10	12.40	3.70
12.32	3.70	12.29	3.60	12.05	3.40	12.02	3.50
12.26	3.40	12.24	3.50	12.02	3.50	12.44	3.60
12.35	3.40	12.09	3.50	12.09	3.50	12.27	3.40
12.12	3.40	12.11	3.40	12.20	3.40	12.23	3.30
12.12	3.40	12.45	3.50	12.20	3.60	12.42	4.00
12.45	3.30	12.30	3.30	12.74	3.80	12.04	3.20
12.42	3.60	12.12	3.40	12.23	3.30	12.14	3.60
12.33	3.40	12.12	3.40	12.21	3.70	12.32	3.80
12.10	3.80	12.12	3.40	12.47	3.70	12.47	3.70
12.43	3.80	12.15	3.80	12.22	3.50	12.47	3.70
12.42	3.40	12.25	3.70	12.22	3.60	12.09	3.50
12.22	3.90	12.41	3.70	12.25	3.70	12.25	3.80
12.38	3.90	12.01	3.60	12.49	3.70	12.33	3.70
12.22	3.60	12.39	3.50	12.21	6.00	12.38	3.80
12.24	3.70	12.35	3.60	12.45	3.30	12.12	3.40
12.32	3.70	12.05	3.70	12.31	3.50	12.25	3.80
12.12	3.40	12.46	3.80	12.20	3.40	12.42	3.40
12.71	3.70	12.32	3.80	12.33	3.70	12.25	3.20
12.24	3.50	12.24	3.50	12.48	3.70	12.42	3.40
12.12	3.40	12.45	3.60	12.39	3.50	12.22	3.60
12.41	3.40	12.26	3.40	12.09	3.60	12.09	3.60
12.48	3.40	12.15	3.50				

CLASSIFIED TABLE OF MILK ANALYSES—Continued.

329 Samples having a percentage of Total Solids between 11.50 and 12.00.

Average for Solids=11.82.

Average for Fat=3.22.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
11.95	3.60	11.94	3.60	11.69	3.10	11.87	3.00
11.65	3.30	11.78	2.80	11.50	3.00	11.99	3.10
11.85	3.30	11.79	2.80	11.85	3.30	11.69	3.30
11.72	3.00	11.90	3.40	11.89	3.20	11.80	3.20
11.78	3.30	11.92	3.10	11.89	3.20	11.65	3.20
11.55	3.30	11.89	3.20	11.80	3.20	11.62	3.10
11.50	3.10	11.91	3.10	11.65	3.20	11.80	3.20
11.79	3.00	11.85	3.40	11.62	3.10	11.85	3.10
11.72	2.70	11.95	3.20	11.51	2.90	11.85	3.10
11.85	3.40	11.76	3.20	11.72	3.30	11.73	3.30
11.95	3.50	11.80	3.20	11.62	2.70	11.89	3.50
11.86	3.00	11.79	3.00	11.97	3.40	11.98	3.40
11.90	3.10	11.53	3.00	11.80	3.00	11.81	3.20
11.87	3.00	11.58	2.65	11.88	3.20	11.92	3.00
11.70	3.00	11.93	3.30	11.75	3.10	11.65	2.00
11.95	2.90	11.85	3.40	11.89	3.00	11.75	3.00
11.65	3.30	11.90	2.00	11.87	3.00	11.85	3.00
11.96	3.70	11.86	3.00	11.94	3.00	11.53	3.30
11.72	3.20	11.99	2.90	11.65	3.20	11.81	3.20
11.67	3.00	11.74	3.50	11.75	2.90	11.85	3.10
11.88	3.00	11.74	3.20	11.85	3.30	11.65	3.00
11.89	3.50	11.62	3.10	11.79	3.00	11.80	3.20
11.78	3.30	11.88	3.00	11.57	3.00	11.89	3.50
11.65	3.30	11.92	3.80	11.80	3.20	11.85	3.60
11.85	3.10	11.53	3.10	11.81	3.20	11.73	3.20
11.81	3.20	11.84	3.10	11.62	3.10	11.52	3.50
11.64	3.00	11.84	3.10	11.69	3.70	11.89	3.10
11.51	3.00	11.69	3.50	11.84	3.70	11.65	3.10
11.61	2.90	11.85	3.60	11.72	3.00	11.61	3.00
11.68	3.10	11.90	3.40	11.87	3.00	11.56	3.70
11.80	3.00	11.89	3.00	11.61	3.10	11.92	3.30
11.80	3.00	11.72	3.00	11.85	3.40	11.95	3.20
11.94	3.00	11.72	3.00	11.95	3.20	11.92	3.10
11.81	3.20	11.70	3.00	11.93	3.30	11.85	3.60
11.84	3.10	11.87	3.00	11.87	3.20	11.91	3.10
11.53	2.90	11.80	3.00	11.65	3.00	11.70	3.10
11.98	3.10	11.92	3.70	11.59	3.10	11.72	3.20
11.62	3.60	11.75	2.90	11.54	3.20	11.90	3.70
11.55	2.90	11.55	3.35	11.53	3.30	11.97	3.40
11.85	3.30	11.75	3.30	11.92	3.10	11.70	3.00
11.59	3.20	11.94	3.00	11.62	3.10	11.81	3.20

CLASSIFIED TABLE OF MILK ANALYSES. Continued
 19. Samples having a percentage of total Solids between
 11.50 and 12.00. Continued

Average for Solids 1.5%				Average for Fat 2.5%			
Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
11.55	1	11.55	1	11.78	3.40	11.82	2.90
11.55	1	11.55	1	11.72	3.40	11.96	3.50
11.62	1	11.62	1	11.8	3.20	11.78	3.00
11.65	1	11.65	1	11.8	3.00	11.56	3.00
11.8	2	11.82	2	11.87	3.90	11.55	2.80
11.8	1	11.8	1	11.72	3.00	11.82	3.50
11.8	1	11.8	1	11.7	2.60	11.55	3.20
11.8	1	11.8	1	11.7	3.40	11.64	3.10
11.8	1	11.8	1	11.7	3.40	11.85	3.60
11.8	2	11.8	2	11.72	3.10	11.71	3.60
11.92	1	11.92	1	11.7	3.40	11.95	3.20
11.92	1	11.92	1	11.7	2.90	11.76	3.40
11.8	1	11.8	1	11.7	3.40	11.65	3.20
11.65	1	11.65	1	11.8	3.30	11.84	3.10
11.65	1	11.65	1	11.8	3.00	11.92	3.10
11.65	1	11.65	1	11.82	3.50	11.79	3.00
11.65	1	11.65	1	11.7	3.60	11.90	3.40
11.65	1	11.65	1	11.8	3.20	11.62	3.40
11.8	1	11.8	1	11.78	3.40	11.59	3.30
11.8	1	11.8	1	11.92	3.30	11.70	3.40
11.87	1	11.87	1	11.7	3.10	11.72	3.20
11.87	1	11.87	1	11.7	3.40	11.70	2.80
11.9	1	11.9	1	11.87	3.50	11.73	3.20
11.8	1	11.8	1	11.7	3.00	11.85	3.30
11.71	1	11.71	1	11.8	3.40	11.81	4.10
11.72	1	11.72	1	11.76	3.40	11.86	3.10
11.6	1	11.6	1	11.8	3.30	11.72	3.30
11.8	1	11.8	1	11.7	3.10	11.72	3.30
11.62	1	11.62	1	11.7	3.40	11.85	3.40
11.92	1	11.92	1	11.67	2.90	11.75	3.10
11.9	1	11.9	1	11.8	3.50	11.72	3.00
11.87	1	11.87	1	11.72	3.20	11.56	3.00
11.7	1	11.7	1	11.90	3.10	11.90	2.90
11.65	1	11.65	1	11.7	2.80	11.96	3.70
11.65	1	11.65	1	11.7	2.80	11.82	3.50
11.65	1	11.65	1	11.7	3.40	11.96	3.70
11.65	1	11.65	1	11.9	3.60	11.81	3.20
11.71	1	11.71	1	11.7	3.40	11.72	3.50
11.71	1	11.71	1	11.7	3.20	11.85	3.40
11.71	1	11.71	1	11.89	3.50	11.97	3.40
11.71	1	11.71	1	11.89	3.20	11.85	3.30

CLASSIFIED TABLE OF MILK ANALYSES. Continued

Lactations having a percentage of Total Solids below 11%.

Average for Solids—11.04.

Average for Fat—2.90.

Solids	Fat	Solids	Fat	Solids	Fat	Solids	Fat
11.7	3.0	11.4	3.0	11.31	3.00	10.06	2.5
10.5	2.0	11.4	2.9	11.46	3.00	11.42	3.0
11.8	2.8	11.4	3.0	11.00	3.10	11.30	3.0
11.2	2.6	11.4	3.0	10.68	3.10	10.18	1.40
11.0	2.90	11.2	2.90	11.4	3.00	10.92	2.9
11.12	3.6	11.7	3.0	11.22	3.70	11.01	3.10
11.5	3.0	11.6	3.0	11.46	3.00	11.14	3.1
11.4	3.0	11.6	2.9	11.28	2.80	10.77	2.8
11.17	3.6	11.22	3.0	11.20	2.60	11.05	2.80
11.45	2.9	11.2	2.9	11.40	3.20	10.99	3.0
11.8	3.0	11.2	2.9	10.4	2.90	11.41	3.0
11.10	2.70	11.8	3.0	11.12	3.20	11.35	2.80
11.62	2.70	11.4	3.0	11.8	2.90	10.90	2.9
11.20	2.80	11.2	2.9	10.9	3.10	11.41	3.0
	2.90	11.4	2.9	10.60	2.70	10.79	2.5
11.28	2.90	11.02	2.40	11.5	3.10	11.18	3.20
10.8	2.50	11.01	3.0	11.35	3.00	10.83	3.0
11.5	3.0	11.82	2.70	11.41	3.20	10.32	3.00
11.91	2.00	11.7	2.90	11.20	2.60	11.48	3.0
11.7	3.0	10.5	2.10	11.8	3.10	10.78	3.0
11.5	3.00	10.8	2.50	9.70	1.55	11.30	2.90
10.80	2.20	10.84	2.60	11.3	3.00	10.60	3.00
11.05	2.40	11.20	2.70	10.57	3.00	11.42	3.00
10.41	3.00	11.10	3.00	9.3	2.35	10.16	2.70
10.70	2.3	11.6	2.80	11.1	3.10	10.77	3.00
11.47	2.20	11.6	2.90	11.60	2.85	10.02	3.0
10.7	3.20	11.4	2.90	11.48	3.05	11.45	2.8
11.50	2.80	11.0	3.00	11.50	2.60	11.39	2.90
11.17	2.90	11.4	2.80	11.13	2.70	11.10	3.00
11.05	2.40	11.28	3.00	11.20	2.60	11.25	3.1
11.5	2.90	11.4	3.00				

COMPARISON TABLE.

Year	1887	1888	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Number of samples analyzed	136	178	221	289	273	339	409	502	419	442	448	531	395	558	891	824	1305
Total Solids of 12.50 and over.																	
Percentage of samples	6.12	6.34	4.96	3.46	3.82	8.18	6.28	5.56	10.0	6.81	6.23	6.22	5.16	5.15	3.73	23.36	6.65
1st class Average % of total solids	13.24	13.14	12.96	12.54	12.60	12.58	12.56	12.74	13.15	13.15	11.95	11.95	11.99	11.79	11.79	11.79	11.79
Average % of fat			3.96	4.06	4.04	4.16	3.88	4.05	4.16	4.09	4.22	4.18	4.12	4.05	3.71	4.02	3.99
Total Solids between 12.00 & 12.50																	
Percentage of samples	21.3	11.5	15.8	24.55	28.1	21.8	21.9	24.56	24.06	26.3	27.6	27.0	28.8	24.58	17.1	10.34	78
2d class Average % of total solids	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23	12.23
Average % of fat			3.00	3.15	3.12	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15
Total Solids below 12.00.																	
Percentage of samples	19.5	17.3	12.3	13.0	14.3	12.9	13.5	11.7	8.0	11.2	17.1	24.18	20.6	31.4	38.2	42.0	31.57
3d class Average % of total solids	11.61	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81	11.81
Average % of fat		3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Total Solids below 11.50.																	
Included Percentage of samples																	
in Average % of total solids																	
3d class Average % of fat																	
General average % of total solids	12.87	12.82	12.75	12.74	12.75	12.74	12.74	12.74	12.74	12.74	12.74	12.74	12.74	12.74	12.74	12.74	12.74
General average % of fat			3.80	3.80	3.75	3.81	3.68	3.75	3.61	3.71	3.83	3.60	3.62	3.58	3.31	3.45	3.51

CITY WATER.

There is nothing of special interest to relate about the city water, which continues to be of the usual good quality. The analytical data are tabulated as follows:

ANALYSES OF NEWARK AQUEDUCT WATER.

90

Samples from Oak Ridge Stream below junction with Clifton Stream at New Foundland.

PARTS PER MILLION.

Date	Temperature Fahr.	Turbidity	Color	Nitrogen as				Chlorine	Temporary Hardness (Alkalinity)	Total Solids	Loss on Evaporation	Fixed Solids
				Free Ammonia	Ammonia as Nitrate	Nitrites	Nitrates					
Jan. 11.	33	3	20	.022	.048	.002	.30	3.0	27	61	26	35
Feb. 21	38	—	15	—	—	—	—	—	—	—	—	—
Mar. 25	46	0.5	40	.036	.132	*	.08	3.0	21	51	24	27
Apr. 22	45	0.5	40	.038	.108	.000	.15	2.0	23	62	18	44
May 20	50	1	30	.028	.106	.000	.08	3.0	30	56	20	36
June 8	54	1	35	—	.121	.000	.08	—	24	—	—	32
July 10	62	1	25	.038	.108	.000	.16	3.0	36	60	24	36
Aug. 7	69	0.5	25	.032	.116	.000	—	—	—	—	18	—
Sept. 10	58	1	30	.030	.118	.001	—	—	—	—	—	—
Oct. 22	42	2	40	.048	.126	.000	—	—	—	—	—	—
Nov. 18	40	0.5	15	.032	.070	.000	—	—	—	—	—	—
Dec. 11	35	2	45	.038	.122	.000	.11	—	—	67	—	—

* Trace.

BOARD OF HEALTH.

ANALYSES OF NEWARK AQUEDUCT WATER.

SAMPLES FROM CLAYTON STREET before junction with Oak Ridge Stream, at New Foundland

PARTS PER MILLION.

1913	Temp Fah	Turbidity	Color	Nitrogen as				Chlorine	Temporary Hardness Alkalinity	Total Solids	Loss on Ignition	Fixed Solids
				Fe Ammonia	Ammonia	Nitrites	Nitrates					
Jan 14	3	1	2	0.0	0.0	0	0	0.0	12	40	15	25
Feb 14	30	0.5	10	0.12	0.06	0.1	0.8	2.0	17	37	15	22
Mar 1	15	1	2	0.0	0.8	0	0.5	0	1	32	1	31
Apr. 22	47	0.7	20	0.3	0.8	0.0	1.2	2.0	12	26	13	13
May 20	48	0.5	2	0.8	0.98	0.05	1.1	2.0	17	35	18	18
June 18	68	0.5	15	0	0.78	0.00	0.8	2.0	19	35	16	19
July 16	8	1	2	0	1.11	0.0	0.8	2.0	14	35	18	15
Aug. 7	60	0.5	15	0	1.8	0.0	0.5	2.0	14	42	9	22
Sept. 3	50	0	11	0.28	0.0	0	0	3.0	20	61	20	41
Oct. 22	50	0.7	2	0.2	0.70	0.0	0	2.0	18	50	11	39
Nov. 18	50	0.7	20	0	0.4	0.0	0.8	2.0	14	57	15	42
Dec. 11	35	1	20	0.8	0.51	0.0	1.5	0	10	50	16	34

Total

ANALYSES OF NEWARK AQUEDUCT WATER
 Samples from Kanouse Brook, above Pequannock River.
 PARTS PER MILLION.

1913	Temperature, Fahr	Turbidity	Color	Nitrogen as				Chlorine	Temporary Hardness (Alkalinity)	Total Solids	Loss on Igni- tion	Fixed Solids
				Free Ammonia	Albumen- oid Ammonia	Ni- trates	Ni- trates					
Jan. 14	34	0.5	35	.016	.058	.000	.08	2.0	10	31	13	18
Feb. 21	38	0.5	20	.018	.050	.002	.06	2.0	17	40	14	26
Mar. 23	50	0.5	35	.040	.118	.000	.06	2.0	12	38	15	23
Apr. 22	42	0.5	40	.032	.106	.000	.10	2.0	16	33	16	17
May 20	50	1.0	40	.032	.098	.000	.08	2.0	22	47	25	22
June 18	60	2	40	.028	.116	.000	.08	2.0	29	49	20	29
July 16	61	0.5	40	.038	.134	.000	.10	2.0	25	47	22	25
Aug. 4	65	0.5	20	.028	.072	.000	.05	2.0	29	49	20	29
Sept. 26	55	0.5	20	.024	.108	.000	.04	4.0	18	94	12	52
Oct. 22	43	0.5	70	.022	.106	.000	.10	2.0	12	68	34	34
Nov. 18	38	0.5	50	.020	.110	.000	.08	2.0	14	39	16	23
Dec. 11	31	0.5	40	.044	.118	.000	.11	2.0	14	43	18	25

ANALYSES OF NEWARK AQUEDUCT WATER.

Samples from Echo Lake Stream, above Pequannock River

PARTS PER MILLION.

1913	Tem- pera- ture, Fahr.	Tur- bidity	Color	Nitrogen as				Chlo- rine	Tempo- rary Hardness (Alka- linity)	Total Solids	Loss on Igni- tion	Fixed Solids
				Free Ammonia	Albumin oid Ammonia	Ni- trites	Ni- trates					
Jan 14	33	0.5	40	.030	.122	.000	.15	2.0	18	54	22	32
Feb 21	37	0.5	25	.058	.104	.011	.18	2.0	22	47	22	25
Mar. 25	49	0.5	35	.036	.128	*	.05	2.0	14	46	14	32
Apr 22	44	0.5	30	.030	.126	.000	.12	2.0	18	49	27	22
May 20	52	0.5	11	0.0	.130	.000	.07	2.0	19	44	19	25
June 18	58	0.5	25	.040	.110	.000	.17	2.0	27	57	25	32
July 16	59	0.5	20	.036	.108	.000	.13	2.0	29	50	15	35
Aug. 7	67	0.5	20	.028	.094	.000	.08	2.0	29	57	3	34
Sept. 25	54	0.5	35	.024	.124	.000	.15	3.0	30	115	37	78
Oct. 22	47	0.5	35	.026	.110	.000	.09	2.0	16	72	32	40
Nov. 18	43	0.5	50	.038	.128	.000	.08	2.0	18	57	19	38
Dec 11	36	0.5	40	.024	.128	.000	.15	2.0	16	63	22	41

* Trace.

ANALYSES OF NEWARK AQUEDUCT WATER

Samples from Macopin Intake, at Gatehouse.

PARTS PER MILLION.

Date	Temperature Fahr.	Turbidity Count	Nitrogen as				Chlorine	Temporary Hardness (Alkalinity)	Total Solids	Loss on Ignition	Fixed Solids
			Free Ammonia	Ammonia Nitrate	Nitrate	Nitrate					
Feb. 17	32	1	0.26	0.74	.000	.15	2.0	14	41	12	29
Feb. 1	32	0	0.36	0.86	.002	.10	2.0	27	61	24	37
Mar. 2	32	0.5	.038	.110	.000	.09	2.0	18	44	18	26
Apr. 22	54	0	.038	.100	.000	.12	2.0	20	45	17	28
May 1	59	0	.446	.094	.000	.07	2.0	23	59	20	39
June 18	60	0	.040	.112	.000	.07	2.0	30	51	21	30
Aug. 16	62	1.5	.028	.096	.000	.05	2.0	6	4	18	18
Aug. 2	58	0.5	.022	.072	.000	.05	2.0	13	4	26	2
Sept. 2	58	0.5	.024	.076	.000	.07	2.0	18	64	26	38
Oct. 1	57	0	.028	.100	.000	.10	2.0	24	8	35	5
Nov. 18	50	0.5	.028	.088	.000	.08	2.0	17	42	21	32
Dec. 11	50	0	.022	.078	.000	.13	2.0	4	44	2	42

* Trace

ANALYSES OF NEWARK AQUEDUCT WATER

Samples from Cedar Grove Reservoir, at Inlet Gatchouse

PARTS PER MILLION.

1913	Tem- pera- ture, Fahr.	Tur- bidity	Color	Nitrogen as				Chlo- rine	Tempo- rary Hardness (Alka- linity)	Total Solids	Loss on Igni- tion	Fixed Solids
				Free Ammonia	Albumin- oid Ammonia	Ni- trates	Ni- trates					
Jan. 14	34	10	30	.026	.086	.000	.15	2.0	14	49	18	31
Feb. 21	55	0.5	25	.034	.096	.001	.11	2.0	25	50	20	30
Mar. 25	50	0.5	30	.038	.132	*	.08	2.0	18	49	21	29
Apr. 22	50	0.5	30	.042	.108	.000	.10	2.0	18	43	24	19
May 20	59	0.5	25	.042	.096	.000	.07	2.0	24	48	17	31
June 18	69	0.5	30	.040	.114	.000	.07	2.0	30	50	19	31
July 16	67	1.0	30	.024	.100	0.0	.08	2.0	26	39	16	23
Aug. 7	67	0.5	20	.032	.060	.000	.06	2.0	17	36	18	18
Sept. 26	62	0.5	25	.018	.084	.000	.05	2.0	30	55	20	35
Oct. 22	53	0.5	35	.030	.112	0.0	.11	2.0	23	74	33	41
Nov. 18	45	0.5	45	.042	.092	0.0	.08	2.0	19	57	26	31
Dec. 11	40	0.5	35	.040	.106	0.0	.15	2.0	20	68	24	44

* Trace.

ANALYSES OF NEWARK AQUEDUCT WATER
Samples from Cedar Grove Reservoir, at Outlet Gatehouse.
PARTS PER MILLION.

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1913	Tem- pera- ture, Fahr.	Tur- bidity	Color	Free Ammonia	Albumin oid Ammonia	Ni- trates	Ni- trates	Chlo- rine	Tempo- rary Hardness (Alka- linity)	Total Solids	Loss on Igni- tion	Fixed Solids
Jan. 11	50	1.0	30	.021	.086	.000	.15	2.0	15	50	19	31
Feb. 21	35	0.5	25	.031	.096	.001	.12	2.0	25	50	19	31
Mar. 25	48	0.7	30	.038	.126	*	.05	2.0	18	50	21	29
Apr. 22	54	0.5	25	.044	.112	.000	.10	2.0	18	45	25	20
May 20	58	0.5	25	.042	.098	.000	.07	2.0	33	49	17	32
June 18	61	0.5	25	.040	.114	.000	.07	2.0	30	48	17	31
July 16	64	1.0	25	.022	.094	.000	.08	2.0	19	48	26	22
Aug. 7	69	0.5	20	.030	.060	.000	.06	2.0	17	39	19	20
Sept. 26	64	0.5	20	.030	.084	.000	.05	2.0	26	53	21	32
Oct. 22	46	0.5	35	.034	.110	.000	.10	2.0	27	73	26	47
Nov. 18	45	0.5	40	.028	.092	.000	.08	2.0	19	50	23	27
Dec. 11	34	0.5	35	.026	.094	.000	.15	2.0	20	53	23	30

* Trace.

BOARD OF HEALTH.

ANALYSES OF NEWARK AQUEDUCT WATER
Samples from Belleville Reservoir, at Inlet Gatehouse
PARTS PER MILLION.

1913	Temperature, Fahr.	Turbidity	Color	Free Ammonia	Nitrogen as Albumin oid Ammonia	Ni- trates	Ni- trates	Chlo- rine	Tempo- rary Hardness (Alka- linity)	Total Solids	Loss on Igni- tion	Fixed Solids
Jan. 14	37	1.0	30	.026	.084	*	.18	2.0	17	54	20	34
Feb. 21	35	0.5	30	.042	.100	.001	.12	2.0	25	55	15	40
Mar. 25	46	0.5	30	.042	.108	*	.05	2.0	17	51	21	30
Apr. 22	51	0.5	30	.044	.106	.000	.10	2.0	19	45	15	30
May 20	58	0.5	25	.042	.104	.000	.07	2.0	20	51	24	27
June 18	66	0.5	25	.036	.098	.000	.07	2.0	28	52	24	28
July 16	63	1.0	25	.030	.106	.000	.08	2.0	19	41	18	23
Aug. 7	71	0.5	20	.030	.060	.000	.05	2.0	18	37	15	22
Sept 26	66	0.5	20	.024	.094	.000	.05	2.0	26	62	23	39
Oct. 22	57	0.5	30	.028	.102	.000	.10	2.0	27	70	22	48
Nov. 18	47	0.5	40	.034	.100	.000	.08	2.0	20	52	20	32
Dec. 11	40	0.5	35	.032	.100	.000	.15	2.0	24	59	24	35

* Trace.

ANALYSES OF NEWARK AQUEDUCT WATER
 Samples from Laboratory Faucet, 927 Broad Street.
 PARTS PER MILLION.

1913	Tem- pera- ture, Fam.	Tur- bidity	Color	Nitrogen as				Chlo- rine	Tempo- rary Hardness (Alka- linity)	Total Solids	Loss on Igni- tion	Fixed Solids
				Free Ammonia	Albumin- oid Ammonia	Ni- trites	N. trates					
Jan. 11	39	10	30	.022	.084	*	.18	2.0	17	19	19	30
Feb. 21	30	0.5	30	.038	.094	.001	.12	2.0	24	59	19	40
Mar. 25	47	0.5	30	.040	.108	*	.05	2.0	17	51	20	31
Apr. 22	51	0.5	30	.042	.106	.000	.10	2.0	19	40	15	31
May 20	58	0.5	30	.042	.102	.000	.07	2.0	20	47	23	24
June 18	66	0.5	25	.030	.112	.000	.07	2.0	29	55	28	25
July 16	69	1.0	25	.024	.088	.000	.08	2.0	19	41	10	22
Aug. 7	72	0.5	20	.028	.060	.000	.05	2.0	18	37	14	20
Sept. 26	65	0.5	20	.022	.106	.000	.05	2.0	26	60	22	37
Oct. 22	58	0.5	30	.024	.104	.000	.09	2.0	27	67	34	33
Nov. 18	44	0.5	40	.030	.094	.000	.08	2.0	20	53	25	30
Dec. 11	45	0.5	35	.032	.100	.000	.15	2.0	24	60	16	41

* Trace.

ANALYSES OF NEWARK AQUEDUCT WATER

Averages of Monthly Examinations.

SOURCE OF SAMPLE	Tem- pera- ture, Fahr	Tur- bidity	Color	Nitrogen as				Chlo- rine	Tempo- rary Hardness Alka- linity	Total Solids	Loss on Igni- tion	Fixed Solids
				Free Ammonia	Albumin- oid Ammonia	Ni- trates	Ni- trates					
Oak Ridge Stream	47.9	1.30	32.08	.0333	.1060	*	.1254	2.75	28.17	6.53	21.83	35.50
Clinton Stream	47.3	1.66	19.20	.0260	.0783	*	.1200	2.08	15.75	38.50	10.08	22.42
Kanouse Brook	47.5	0.66	37.50	.0285	.0895	.000	.0783	2.17	18.17	18.17	21.25	10.92
Echo Lake Stream	48.3	0.50	33.00	.0341	.1177	.000	.118	2.8	21.33	59.25	24.08	36.17
Macopin Intake	49.3	0.58	32.50	.0350	.1175	.000	.0914	2.08	29.25	53.25	21.33	31.92
Cedar Grove Intake	52.6	0.58	30.00	.0341	.0988	.000	.0900	2.00	21.50	51.50	21.25	30.25
Cedar Grove Outlet	52.0	0.58	28.00	.0327	.0970	.000	.0900	2.00	21.40	50.50	21.30	29.20
Belleville Reservoir	53.6	0.48	28.30	.0312	.0940	.000	.0920	2.00	21.70	52.40	20.10	32.30
Laboratory faucet	54.7	0.58	28.80	.0312	.0970	.000	.0910	2.00	21.40	52.10	21.30	30.80

* Trace.

The table of Maximum, Minimum and Average Total Solids in the water from the Laboratory Faucet has been continued to date:

TOTAL SOLIDS (Grains per U. S. Gallon).

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Maximum	2.66	3.00	2.92	2.92	2.92	2.92	3.21	3.09	2.92	3.37	3.50	3.91	3.42	3.91
Minimum	1.96	1.93	1.58	1.69	2.04	1.60	2.41	2.35	2.22	2.23	2.16	2.63	1.92	2.16
Average	2.23	2.68	2.45	2.32	2.52	2.33	2.71	2.60	2.66	2.78	2.81	3.06	2.94	3.04

MISCELLANEOUS.

The usual miscellaneous samples of various kinds were examined and included: Candy, Vinegar, Sausage Color, Well and Spring water and seventeen (17) samples of suspected butter of which three (3) were oleomargarine.

Very respectfully,

HERBERT B. BALDWIN,

Chemist.

ANNUAL REPORT

Bureau of Contagious Diseases

NEWARK BOARD OF HEALTH

FOR THE YEAR 1913

EDWARD E. WORL, M. D.

ANNUAL REPORT

OF THE

Bureau of Contagious Diseases

FOR YEAR 1913

To D. D. Chandler, Health Officer.

DEAR SIR I have the honor to present the following report of the Bureau of Contagious Diseases for the year 1913.

OUR POPULATION.

Our estimated population is placed at 380,000 The last U. S. Census, 1910, gives us the figures 347,469.

The population is distributed as follows:

WARD.	POPULATION.
1	15,952
2	15,769
3	38,943
4	15,789
5	20,003
6	22,977
7	24,507
8	22,199
9	17,838
10	26,463
11	24,441
12	21,822
13	20,984
14	37,861
15	21,655
16	32,797
Total	380,000

THE DEATH RATE.

The death rate for 1913 is fixed at 14.63 per thousand. It includes, according to law, 145 deaths occurring in Soho Hospital.

The city death rate, excluding the hospital mortality, is fixed at 9.71 per thousand. The following table compares these rates, beginning with 1894:

YEAR.	POPULATION.	NO. OF DEATHS.	DEATH RATE
1894.....	203,923	4,543	22.28
1895.....	215,725	4,615	21.37
1896.....	225,000	4,716	20.96
1897.....	230,000	4,010	17.43
1898.....	235,000	4,303	18.30
1899.....	240,000	3,537	18.90
1900.....	246,070	5,006	20.34
1901.....	250,000	4,806	19.22
1902.....	255,000	4,943	19.38
1903.....	266,000	4,923	18.50
1904.....	272,000	5,378	19.77
1905.....	283,289	5,025	17.74
1906.....	290,000	5,551	19.14
1907.....	300,000	5,724	19.08
1908.....	305,000	5,207	17.07
1909.....	311,000	5,529	17.77
1910.....	347,469	5,784	16.64
1911.....	352,000	5,337	15.16
1912.....	370,000	5,423	14.65
1913.....	380,000	5,562	14.63

SCARLET FEVER.

During 1913 we have reported 1,036 cases and 26 deaths. Comparing with the previous years we have

YEAR	CASES.	DEATHS.
1894	1,145	69
1895	623	35
1896	537	17
1897	1,358	54
1898	478	15
1899	607	34
1900	708	55
1901	643	23
1902	557	46
1903	779	71
1904	1,549	120
1905	1,309	45
1906	616	34
1907	773	41
1908	1,500	89
1909	1,786	70
1910	1,664	39
1911	1,027	21
1912	698	11
1913	1,036	26
	<hr/> 19,493	<hr/> 915

Average mortality for 20 years, 4 7/10%.

REPORTED CASES AND DEATHS BY MONTHS

MONTHS.	CASES	DEATHS	DEATHS IN SOHO
January	134	3	1
February	103	2	.
March	113	4	1
April	99	3	1
May	102	3	1
June	73	1	1
July	31	1	
August	26	1	
September	42		
October	84	1	1
November	75		
December	154	1	
Total.....	1,036	20	6
Total			26

The mortality rate was 2.5%

According to Chapter 154, Laws 1911, the six deaths occurring at Soho Hospital must be added to the rate.

TYPHOID FEVER.

During 1913 we have reported 217 cases and 30 deaths, a mortality of 13.82%. Comparing with previous years we have:

YEAR	CASES.	DEATHS
1894	89	34
1895	149	50
1896	106	47
1897	105	34
1898	179	41
1899	515	60
1900	320	50
01	316	57
1902	279	47
1903	306	61
1904	210	40
1905	228	40

BOARD OF HEALTH.

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1906	336	50
1907	330	69
1908	181	35
1909	210	39
1910	178	44
1911	200	37
1912	193	26
1913	217	30
	4,625	892

The average mortality for 20 years is 19.3%.

The deaths from Typhoid Fever are 7.9 to 100,000 of the population.

REPORTED TYPHOID FEVER CASES AND DEATHS BY MONTHS.

MONTH	CASES.	DEATHS.
January	12	2
February	2	..
March	8	3
April	10	.
May	18	1
June	12	2
July	21	4
August	30	4
September	29	5
October	30	5
November	20	4
December	25	—
Total	217	30

INFANTILE PARALYSIS.

Infantile Paralysis was made reportable to local Boards of Health, August 30, 1912. During year 1913 there were reported,

MONTH.	CASES.	DEATHS.
February	1	
May ..	2	
June . .	1	
July ..	1	
August .	6	1
September	8	
October ..	3	1
November	1	
December .	1	
	<hr/>	<hr/>
	24	2

Cases reported:

1910	
1911.	33
1912	10
1913	24

DIPHTHERIA.

During 1913 we had reported 1,594 cases and 110 deaths, a mortality of 6.9%.

DIPHTHERIA CASES AND DEATHS, 1913.

YEAR.	CASES.	DEATHS.
1897	1,321	273
1898	1,261	218
1899	969	137
1900	1,019	133
1901	1,170	124
1902	1,417	143
1903	1,154	103
1904	985	105
1905	1,150	120

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1904	1,853	150
1905	1,614	110
1906	1,273	99
1907	1,039	95
1908	806	61
1909	1,393	103
1910	1,585	104
1911	1,339	74
1912	1,008	91
1913	1,594	110

DIPHTHERIA REPORTED CASES AND DEATHS BY MONTHS.

MONTHS.	CASES.	DEATHS.	DEATHS
			SOHO HOSPITAL.
January	182	7	9
February	167	2	4
March .	150	7	5
April ..	125	10	3
May ...	107	3	3
June .	114	4	3
July .	69	5	2
August .	88	4	..
September	90	3	3
October	128	3	1
November	192	11	2
December	175	7	9
Total	1,594	66	44

DIPHTHERIA (ANTITOXIN USED)

YEAR.	CASES	DEATHS.	PERCENTAGE.
1895	384	52	13
1896	905	106	11
1897	563	61	11
1898	646	68	10½
1899	798	70	8 77-250
1900	987	80	8 1-10
1901	956	58	6 1-10
1902	775	61	7 4-10

1903	97	71	7 5-10
1904	1 209	95	6 7-10
1905	1 421	82	5 77-100
1906	171	72	6 1-10
1907	913	64	7
1908	196	49	6 7-10
1909	1 117	64	5 7-10
1910	1 212	80	6 3-10
1911	1 247	56	4 5-10
1912	1 607	76	7 56-100
1913	1 489	89	5 97-100

DIPHTHERIA (ANTITOXIN NOT USED).

YEAR.	CASES	DEATHS.	PERCENTAGE.
1905	937	221	23
1906	356	112	31
1907	406	76	19
1908	373	65	17½
1909	372	54	14½
1910	430	63	14 6-10
1911	198	45	22 7-10
1912	210	44	19
1913	197	49	24 87-100
1914	254	55	21 65-100
1915	193	28	14 5-10
1916	102	27	26 4-10
1917	126	31	24 6-10
1918	80	17	21 2-10
1919	121	41	33 8-10
1920	133	24	18
1921	92	18	19 5-10
1922	93	15	16 12-100
1923	105	21	20

MEASLES.

Measles was made reportable to this Board April 2, 1912. The cases reported are many in number but the deaths are incomplete, many being probably registered under complications.

	CASES.	DEATHS.		CASES	DEATHS.
January	88	..	August	57	2
February	82	..	September .	64	
March	105	1	October ...	90	
April	226	..	November ..	237	.
May	38	2	December ..	545	2
June	411	4			
July	176		Total	2,539	12

Last year (1912) the cases and deaths from April to December inclusive, 818 cases, 28 deaths.

WHOOPIING COUGH.

This disease was made reportable to Board of Health June 4, 1912. The cases are fairly well reported, the deaths are probably registered under complications.

For 1913 we had reported:

	CASES.	DEATHS.		CASES	DEATHS.
January	77	..	August	128	4
February	70	3	September ..	74	1
March	80	..	October ...	50	1
April	141	5	November ..	47	2
May	205	4	December ..	52	2
June	191	..			
July	161	5	Total ..	1,276	27

Last year from June to December, 1912, we had 133 cases, 9 deaths.

CHICKEN POX.

This disease was made reportable by Amendment to State L. w. approved July 6, 1911. We have only a partial list in reported cases 1912-211 cases.

FOR YEAR 1913

	CASES
January .	166
February	168
March	148
April	174
May	117
June	141
July	21
August	26
September	1
October	13
November	2
December	31
Total .	1114

Of these 1,114 cases 96½% were under 15 years, 2% were between 10 and 15 years, 1½% were over 15 years old.

PURULENT OPHTHALMIA.

This disease was made reportable June 4, 1912.

	CASES
January .	2
February	3
March .	3
April	1
May	
June	
July	
August .	3
September	1
October .	
November	
December .	1
Total	14

For 1912 we had reported 14 cases

TRACHOMA.

Made reportable under Amended Law, 1911, approved July 6, 1911. Seventy five per cent, of these cases end in blindness

	CASES
January	13
February	8
March	11
April	10
May	19
June	21
July	3
August	
September	10
October	
November	3
December	7
Total	105

For 1912 we had 44 cases.

MALARIA.

This is made a reportable disease under amended law, 1911, approved July 6, 1911 The following cases have been reported:

1913

	CASES
January	1
February	1
March	1
April	3
May	12
June	7
July	5
August	7
September	5
October	5
November	2
December	1
Total	60

There was recorded one death from Malaria in January 1913

In 1912 we had reported 39 cases, 2 deaths

SMALLPOX.

No cases were reported for 1913, but a number of "suspects" were examined.

The following table gives our record in this disease

YEARS.	CASES.	DEATHS
1894	131	18
1895	13	2
1896		
1897		
1898		
1899	22	
1900	15	1
1901	387	71
1902	901	187
1903	25	3
1904	1	
1905	1	
1906		
1907	0	
1908	2	
1909	1	
1910		
1911		
1912	4	
1913		
	<hr/> 1,524	<hr/> 282

Mortality for 20 years, 18.51%.

VACCINATIONS

1901	28,288
1902	26,043
1903	4,671
1904	5,555
1905	8,243
1906	3,032
1907	1,954
1908	1,540
1909	1,401
1910	5,156
1911	5,828
1912	6,300
1913	5,537
Total	103,568

VACCINATIONS—1913.

MONTH	MEDICAL INSPECTORS, SCHOOLS.	CITY DISPENSARY.
January	177	20
February	279	30
March	159	54
April	469	90
May	520	52
June	208	40
July		12
August		25
September	166	30
October	110	23
November	412	20
December	228	13
	—	— Total
	1,128	+ 409 = 5,537

EPIDEMIC MENINGITIS

During 1913 we had reported 17 cases and 8 deaths.

MONTH.	CASES.	DEATHS.
January	2	
February	2	
March	3	
April		
May	1	
June	2	..
July		1
August	3	3
September	2	3
October	2	..
November		1
December		
Total..		8

Our record in this disease stands as follows

YEAR.	CASES.	DEATHS.
1904	110	90
1905	27	20
1906	5	38
1908	13	11
1909	8	~
1910	3	1
1911	~	5
1912	7	~
1913	17	8

MUMPS.

This disease was made reportable to the Board of Health June 4, 1912. The reported cases for 1913 stand as follows:

MONTH.	CASES	MONTH.	CASES
January ...	76	August ...	14
February	77	September	23
March	98	October ..	8
April	90	November	17
May	94	December .	28
June .	101		
July	27	Total.....	655

The previous year, 1912, from June to December, 1912, inclusive, 255 cases reported.

TUBERCULOSIS.

We present here for 1913 the reported cases of Tuberculosis. This includes all forms of the disease. A slight increase in number is noted, but we consider the disease is being better reported.

REPORTED CASES ALL FORMS TUBERCULOSIS 1913

MONTH.	CASES.
January	196
February	134
March	167
April	196
May	214
June	181
July	143
August .	150
September .	124
October	133
November	151
December	132
Total	1923

TABLE. DEATHS 1913 FROM PULMONARY TUBERCULOSIS AND ALL FORMS TUBERCULOSIS.

MONTH.	PULMONARY TUBERCULOSIS.	SOHO.	ALL FORMS TUBERCULOSIS
January	57	7	71
February	40	6	50
March	60	11	64
April	51	10	54
May	37	12	54
June	"	7	42
July	"	3	40
August	"	10	51
September	"	7	47
October	"	6	59
November	"	8	47
December	"	8	59
Total ..	536	+ 95	= 638 Newark 95 Soho — 733 Deaths

Table showing AVERAGE DEATH RATE from all causes, also Deaths and Death Rates from Pulmonary Tuberculosis, and also all forms Tuberculosis.

YEAR	Total Deaths	Total Death Rate per M.	Total Deaths Pulmonary Tuberc.	Death Rate Pulmonary Tuberc.	Total Deaths All Forms Tuberc.	Death Rate All Forms Tuberc per M.
1899	4,406	21.3	62	2.45	66	2.71
1901	4,806	22.2	81	2.32	69	2.72
1902	4,443	20.8	56	2.18	60	2.59
1903	4,043	18.9	62	2.35	71	2.70
1904	3,368	14.7	61	2.29	75	2.84
1905	3,207	15.1	47	2.28	48	2.75
1906	3,774	16.11	62	2.36	81	2.93
1907	3,724	16.08	68	2.28	79	2.65
1908	3,707	15.9	68	2.36	75	2.60
1909	3,720	17.1	76	2.40	74	2.45
1910	3,784	16.4	81	2.30	82	2.40
1911	3,771	15.16	78	2.30	79	2.31
1912	3,422	14.6	70	1.97	58	1.61
1913	3,562	14.3	62	1.96	63	1.83

INDUSTRIAL DISEASES.

Under the provisions of Chapter 351, Laws 1912, physicians are required to report certain diseases contracted as the result of occupation. These are lead, phosphorus, arsenic or mercury or their compounds, or from compressed air illness. Thirty days are allowed to report the cases and the penalty is twenty five dollars. We group these diseases together.

CASES REPORTED 1913.

LEAD POISONING.

	CASES.
January	4
February	3
March	1
April	2
May	6
June	2
July	4
August	3
September	3
October	3
November	5
December	4
Total	40

For 1912 we had 18 cases.

ARSENIC POISONING

One case reported in 1913.

For 1912 two cases reported.

MERCURY POISONING.

One case reported in 1913.

One case reported in 1912.

COMPRESSED AIR ILLNESS.

One case reported in 1913.

PHOSPHORUS POISONING

No cases reported in 1913.

EPILEPSY AND MENTAL DEFICIENCY

Under provisions Chapter 182, Laws 1912, to secure better care and supervision and to collect statistical data, physicians are required to report these diseases to local board of health. The penalty is \$50. The following cases were reported in 1913:

EPILEPSY CASES REPORTED IN 1913.

	CASES.	DEATHS.
January ..	9	2
February ..	5	2
March ..	4	1
April ..	3	3
May ..	1	1
June ..	2	..
July ..	2	..
August ..	3	1
September ..	4	1
October ..	2	1
November ..	3	2
December ..	4	..
Total ..	42	14

For 1912 we had 23 cases and 7 deaths

MENTAL DEFICIENCY REPORTED IN 1913.

	CASES
January	3
February	6
March	10
April	7
May	7
June	6
July	6
August	9
September	3
October	5
November	16
December	6
Total ..	109

For 1912 34 cases were reported

DEATHS IN HOSPITALS AND INSTITUTIONS—1917

Newark City Hospital	783
St. Michael's Hospital	277
German Hospital	68
St. James' Hospital	70
Babies' Hospital	101
St. Barnabas' Hospital	85
Alms House	40
Homeopathic Hospital	29
Little Sisters of the Poor	26
Home for Crippled Children	8
Beth Israel Hospital	96
Newark Sanatorium	6
Newark Private Hospital	21
Police Ambulance	5
Home for Aged Women	23
Women's and Children's Hospital	19
Home for Incurables	21
House Good Shepherd	5
Eye and Ear Infirmary	5
Essex County Jail	1
Krueger Greisenheim	1
Presbyterian Hospital	18
Lenox Hotel	1
Maternity Hospital	4
Physicians' and Surgeons' Hospital	1
West Side Public School	1
Post Office Building	2
Lyric Theatre	1
Police Headquarters	3
Fire Automobile	1
Hays Foundry	1
St. Antoninus' Church	
Kensington Hotel	1
Essex County Hospital	1
Total	1,726

Our deaths in institutions equal 31.03% of the total mortality, 5,562 deaths.

BIRTHS REPORTED FOR YEAR 1913.

White	10,513
Colored ..	297
Male	5,518
Female	5,291
Native Father ..	4,127
Native Mother ..	4,453
Foreign Father ..	6,609
Foreign Mother ..	6,344
Name stated ..	9,732
Name not stated ..	1,078
Legitimate ..	10,664
Illegitimate ..	146
No sex stated.....	1
<hr/>	
Total births reported.	10,810
Rate per thousand	28.44

STILL BIRTHS REPORTED 1913.

Male	295
Female	197
Not stated ..	3
Mother native ..	188
Mother foreign ..	287
Mother not stated ..	17
Father native ..	216
Father foreign ..	257
Father not stated..	19
White	464
Colored ..	28
<hr/>	
Total still births.....	492
Rate	1.39 per thousand

MARRIAGES REPORTED 1913.

White Male ..	3,879
White Female ..	3,879
Colored Male ..	153
Colored Female ..	153
Native Male ..	1,990
Foreign Male ..	2,042
Native Female ..	2,004
Foreign Female ..	2,028
First Marriage Male. .	3,661
First Marriage Female. .	3,714
Second Marriage Male ..	354
Third Marriage Male. .	14
Second Marriage Female .	311
Third Marriage Female ..	7
Total Marriages ..	4,032
Rate per thousand. .	10.61

CASES AND DEATHS (NEWARK CASES) SENT TO ESSEX COUNTY ISOLATION HOSPITAL, SOHO, N. J., 1913

MONTH	Tuberculosis		Scarlet Fever		Diphtheria	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
January	29	7	23	1	46	9
February	16	6	18	—	53	4
March	23	11	19	1	38	5
April	25	10	20	1	18	3
May	28	12	16	1	19	3
June	30	7	12	1	33	3
July	16	3	7	—	17	2
August	23	10	2	—	18	—
September	21	7	14	—	9	3
October	21	6	23	1	14	1
November	20	8	13	—	46	2
December	20	8	31	—	48	9
Totals.	272	95	198	6	359	44

Total cases, 829. Total deaths, 145.

[illegible]

TYPHOID FEVER BY WARDS 1913

[illegible]

CLASSIFIED

MORTUARY REPORT

1913

MORTUARY REPORT—1913

DISEASES	Jan	Feb	Mar	April	May	June	July	Aug	Sept.	Oct	Nov	Dec	Total
I. General Diseases.													
(a. Epidemic Diseases)													
Typhoid Fever	2	0	4	0	1	2	4	4	5	5	4	1	30
Malaria	1	0	0	0	0	0	0	0	0	0	0	0	1
Measles	0	0	1	1	0	2	4	2	1	1	0	2	12
Scarlet Fever	3	2	1	4	3	1	1	1	0	1	0	1	20
Whooping Cough	0	3	0	5	1	0	5	1	1	1	2	2	21
Diphtheria and Croup	7	2	7	10	3	4	5	1	5	3	11	4	66
Influenza	2	2	2	3	1	0	0	0	0	0	2	0	12
Cholera Morbus	0	0	0	0	0	0	0	0	0	0	0	0	0
Dysentery	0	0	0	0	0	0	1	0	0	0	0	0	1
Erysipelas	2	9	4	4	5	4	1	4	1	1	1	3	39
Other Epidemic Diseases	0	1	0	0	0	0	0	0	0	0	0	0	1
(b. Other General Diseases)													
Rabies	0	1	0	0	1	0	0	0	0	0	0	0	2
Purulent Infection and Septicæmia	2	1	1	2	0	3	2	3	2	1	1	4	22
Tuberculosis													
Lungs	37	40	61	51	37	31	30	41	13	73	42	52	536
Larynx	2	2	1	0	0	0	1	1	1	0	0	0	7
Meninges	7	3	2	1	6	4	7	4	1	3	2	4	47
Abdominal	0	1	0	0	4	3	1	1	2	2	0	1	15
General Tuberculosis	3	1	1	1	6	0	0	2	0	0	1	1	13
Pott's Disease	0	0	0	0	1	0	1	1	0	0	0	0	3

MORTUARY REPORT—1913—Continued.

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DISEASES	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Other Forms of Tuberculosis.....	2	0	1	1	0	1	0	1	0	1	2	2	11
Serofula	0	0	0	0	0	0	0	0	0	0	0	0	0
Syphilis	2	2	2	2	2	0	1	0	1	2	1	1	16
Cancer and Malignant Tumors													
Buccal Cavity	3	1	1	1	2	1	2	0	2	1	4	4	22
Stomach and Liver	8	3	10	9	8	9	9	3	9	6	8	12	106
Peritoneum, Intestines, Rectum	1	2	6	4	4	4	3	3	3	7	0	4	51
Female Genital Organs	2	5	3	3	1	2	3	3	2	3	1	2	31
Breast	0	0	2	2	2	3	1	0	2	3	3	1	19
Skid	0	0	0	0	0	0	0	1	0	0	0	0	1
Organs not specified	5	2	1	2	7	3	4	6	2	3	3	2	40
Other Tumors	3	3	4	4	1	2	2	6	4	2	3	2	36
Acute Articular Rheumatism	0	1	0	0	1	0	0	0	0	0	1	0	3
Chronic Rheumatism and Gout	0	1	1	1	0	0	0	1	0	1	1	0	6
Diabetes	7	8	7	5	4	1	10	2	5	6	5	10	70
Exophthalmic Goitre	1	0	0	1	0	2	0	0	0	2	0	0	6
Leukemia	0	0	1	0	0	0	1	0	0	1	0	3	6
Anemia Chlorosis	1	2	5	2	3	5	1	0	0	2	1	1	23
Acute and Chronic Alcoholism	5	5	8	2	0	15	8	15	5	7	1	1	79
Other Chronic Poisonings	0	0	0	0	0	0	0	0	0	0	0	0	0
Other General Diseases	0	0	0	1	0	0	0	1	0	0	0	0	2
Chronic Lead Poisoning	0	0	1	0	0	0	0	0	1	0	0	0	2
Addison's Disease	0	0	0	0	1	0	0	0	0	0	0	0	1

MARI OF HEALTH.

MORTUARY REPORT—1913—Continued.

DISEASES	Jan	Feb.	Mar.	April	May	June	July	Aug.	Sept	Oct.	Nov	Dec	Total
II.—Nervous System													
Encephalitis	1	0	0	1	0	0	0	0	0	0	0	0	2
Simple Meningitis...	4	4	7	5	1	1	2	6	0	2	3	4	39
Epidemic Meningitis	0	0	0	0	0	0	1	3	3	0	1	0	8
Locomotor Ataxia	1	0	1	1	0	0	0	1	2	0	0	1	7
Other Diseases of Spinal Chord	0	0	0	0	0	0	0	0	0	0	0	1	1
Congestion and Hemorrhage of Brain	30	34	5	21	22	23	26	23	13	28	21	39	308
Softening of Brain	0	2	1	2	0	0	0	1	0	1	1	1	9
Paralysis, without specified cause	0	2	1	4	3	6	1	1	1	1	0	3	26
General Paralysis...	1	0	0	1	0	1	0	1	2	0	0	0	6
Other Forms of Mental Alienation	0	0	1	2	0	2	3	1	2	2	1	2	16
Epilepsy ..	2	2	1	3	1	0	0	1	1	1	2	0	14
Convulsions (over 5 years)	0	0	0	0	0	0	0	0	0	0	0	0	0
Convulsions (under 5 years)	6	5	5	7	4	0	2	3	1	7	3	3	46
Chorea	0	0	0	0	0	0	0	0	0	0	0	0	0
Tetanus	1	0	0	0	1	1	0	0	1	0	0	0	4
Other Diseases of Nervous System	3	2	1	3	1	3	1	0	1	3	1	2	21
Diseases of Ear	0	2	1	0	0	0	1	0	1	1	0	0	6
Infantile Paralysis	0	0	0	0	0	0	0	1	0	1	0	0	2

DISEASES	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Asthma	2	1	3	3	4	1	0	1	2	0	2	2	23
Emphysema	0	0	0	0	0	0	1	0	0	0	1	1	3
Other Diseases of Respiratory Organs	0	1	0	2	3	2	2	3	2	0	0	0	21
V. Digestive System													
Diseases of Mouth and Adnuxa	0	0	2	1	0	2	1	1	1	0	0	0	8
Diseases of Oesophagus	0	0	1	0	0	0	0	0	0	1	0	0	2
Ulcer of Stomach	3	1	2	3	4	2	1	2	1	2	0	0	21
Other Diseases of Stomach (except Cancer)	2	2	2	2	3	1	1	2	1	1	2	0	26
Diseases of Intestines (under 2 years)	13	5	5	3	11	18	82	11	5	25	7	11	200
Diseases of Intestines (over 2 years)	1	0	1	1	3	3	2	6	0	1	1	0	23
Hemorrhoids (anal Obstruction)	7	8	8	1	2	3	2	0	2	3	3	4	51
Acute Yellow Atrophy of Liver	0	0	0	0	1	0	0	1	0	0	0	0	2
Cancers of Liver	0	7	8	10	5	2	1	6	6	4	3	2	70
Biliary Calculi	0	2	0	1	1	0	1	0	2	1	1	0	11
Other Diseases of Liver	1	0	1	1	1	2	1	2	2	1	1	1	17
Spilled Bile (jaundice)	3	1	3	1	0	2	4	2	2	0	0	0	18
Appendicitis	3	1	3	4	2	3	3	2	1	6	2	3	39
Other Diseases of Digestive System	1	1	0	0	0	1	0	0	2	0	1	0	6

MORTUARY REPORT—1913—Continued.

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BOARD OF HEALTH

DISEASES	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
VI. Genito-Urinary System													
Acute Nephritis	1	5	5	3		5	1	3	2	2	3	1	15
Bright's Disease	14	11	8	21	38	34	28	25	31	1		3	288
Other Diseases of Kidneys	2	2	1	1	6	0	0	0	1	2	1	2	15
Calculus of Urinary Tract	0	0	1	6	0	0	0	0	0	0	1	0	2
Diseases of Bladder	2	0	1	1	2	0	0	1	0	0	0	0	7
Diseases of Prostate	0	1	0	1	0	0	0	0	0	1	0	0	3
Diseases of Uterus	0	1	0	0	0	0	0	0	0	0	0	0	1
Cysts and Tumors of Ovary	0	0	0	0	0	0	1	0	0	0	1	0	2
VII. Puerperal State													
Accidents of Pregnancy	1	1	0	0	2	0	0	0	1	0	0	0	5
Puerperal Hemorrhage	1	0	0	2	1	2	2	1	0	0	1	1	11
Other Accidents of Labor	1	1	2	1	1	0	2	1	0	0	0	0	9
Puerperal Septicemia	1	5	1	4	1	3		1	1	2	2	5	35
Puerperal Abdominal Pain and Convulsions	0	0	0	1	2	1	1	1	0		1	0	13
Other Puerperal Accidents	1	0	2	1	1	0	0	1	0	0	0	1	7
VIII. Diseases of Skin													
Erysipelas	0	1	2	0	0	1	1	0	0	0	0	0	5
Furunculæ Carbuncles	0	0	0	1	0	0	0	0	0	1	0	0	2
Acute Abscess and Phlegmon	0	0	0	1	1	1	1	0	1	0	2	1	8
Other Diseases of Skin	1	0	1	2	1	0	2	1	0	0	0	1	9

MORTUARY REPORT 1913—*Continued*

DISEASES	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
IX.—Organs of Locomotion													
Non-Tubercular Diseases of Bones	0	0	0	1	0	0	0	0	0	0	0	0	1
Rickets	0	0	1	0	2	0	0	0	1	0	0	2	5
Arthritis and Other Diseases of Joints	1	0	0	0	1	0	0	0	0	0	0	0	1
Other Diseases of Organs of Locomotion	1	0	0	0	0	0	0	0	0	0	0	1	1
Amputation	1	0	0	0	0	0	0	0	0	0	1	0	1
X.—Malformation.													
Congenital Malformation	3	4	0	4	3	0	2	1	2	3	5	6	39
XI.—Early Infancy													
Congenital Debility—Icterus	0	12	5	2	2	0	0	2	13	4	0	2	42
Other Diseases of Early Infancy	27	9	16	20	26	16	42	27	9	42	27	35	394
Lack of Care	1	0	0	0	0	0	0	0	0	0	0	0	1
XII.—Old Age													
Senile Debility	5	7	7	5	5	4	3	4	4	7	5	10	66
XIII.—External Causes.													
Suicide by -													
Poison	0	0	1	1	0	1	2	1	1	3	2	1	13
Asphyxia	2	0	4	2	2	2	0	0	2	3	1	4	22
Hanging	0	0	0	1	1	0	0	0	2	0	2	1	7

MORTUARY REPORT—1933—Continued

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BOARD OF HEALTH.

CAUSES	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Drowning	0	0	1	0	0	0	1	1	0	0	0	0	3
Falls	1	0	0	0	2	0	3	0	0	0	2	1	9
Crushing	0	0	1	0	1	1	1	1	1	0	1	1	9
Other Suicides	0	0	0	0	3	0	0	1	0	0	0	0	4
Other Violence	0	0	0	0	1	0	0	0	0	0	0	0	1
Other	11	9	7	2	8	5	13	4	5	13	5	7	89
Total	5	5	2	1	7	3	3	2	11	4	2	2	47
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	7	2	0	0	0	0	9
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	1	0	0	1
Other	0	1	4	2	1	4	3	7	1	2	0	0	25
Inanition (Starvation)	0	0	2	0	0	0	0	0	0	0	1	0	3
Absorption of Gases (non suicidal)	4	3	3	1	0	0	0	1	1	2	1	3	19
Other Acute Poisons	1	1	0	0	1	1	1	1	1	0	0	1	8
Other Accidental Traumatism	7	4	5	2	5	6	2	0	3	8	10	2	54
Other External Violence	0	0	0	2	1	0	1	0	0	1	2	1	8
XIV. Ill Defined Causes													
Causes Unspecified or Ill Defined	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18	19	21	11	20	16	18	11	20	15	14	14	167

AGE	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Scho Deaths
Under 1 year	76	64	74	77	64	65	145	116	83	88	65	75	987	+ 13 999
1 to 5 years	20	18	26	34	21	22	27	15	19	11	13	21	24	+ 8 331
6 to 10 years	14	13	24	9	20	19	—	18	13	18	15	26	204	+ 18 222
11 to 15 years	18	29	25	24	35	—	24	21	28	39	21	24	255	+ 24 279
16 to 20 years	214	209	232	192	184	177	17	164	17	108	187	219	2,222	+ 84 2,306
Over 20 years	151	176	161	118	135	229	296	83	81	114	93	142	1,536	+ 9 1,545
Totals	488	480	514	441	439	466	281	401	266	435	396	561	5,417	+145 5,562
COLOR														
White	186	154	175	124	162	191	—	304	71	409	269	467	3,122	+ 15 3,137
Colored	11	32	25	15	22	11	—	11	11	24	26	19	118	+ 6 124
Yellow	1	0	1	1	0	1	0	0	1	0	1	1	7	+ 0= 7
Totals	198	186	201	141	184	202	184	415	83	433	296	507	3,247	+ 21 3,268
SEX														
Male	232	270	299	244	255	37	28	223	244	254	261	275	3,036	+ 94 3,130
Female	256	210	212	197	184	199	185	178	129	181	135	229	2,381	+ 51 2,432
Totals	488	480	511	441	439	466	281	401	266	435	396	504	5,417	+145 5,562
Rate 14.637 per 1,000														

Respectfully submitted,

EDWARD E. WORL, M. D.,
Superintendent Bureau Contagious Diseases

ANNUAL REPORT

OF THE

Medical Director of the Newark

City Sanatorium for Tuberculosis

ANNUAL REPORT

Medical Director of the Newark

City Sanatorium for Tuberculosis

David D. Chandler, Esq., Health Officer:

DEAR SIR: I have the honor to present the following report of the work of the Newark City Sanatorium for Tuberculosis, Verona, N. J., for the year ending December 31st, 1913.

The Sanatorium was opened January 21, 1908, for the reception of patients. During 1908 129 patients were admitted, of whom 72 were discharged, leaving in the institution January 1, 1909, 57 patients.

During 1909 there were 147 admissions and 154 patients discharged, leaving in the institution January 1, 1910, 50 patients.

During 1910 there were 156 patients admitted and 153 discharged, leaving in the institution January 1, 1911, 53 patients.

During 1911 there were 157 patients admitted and 166 patients discharged, leaving in the institution January 1, 1912, 44 patients.

During 1912 there were 213 patients admitted and 200 patients discharged, leaving in the institution January 1, 1913, 57 patients.

During 1913 there were 172 patients admitted and 188 patients discharged, leaving in the institution January 1, 1914, 41 patients.

TABLE I.

Patients in Institution January 1, 1913.....	57
Patients admitted during 1913... ..	172
Patients treated in 1913.	229
Patients discharged 1913	188
Patients in Institution January 1, 1914.	41

TABLE II.

Admissions and Discharges Monthly, 1913.

	ADMITTED.	DISCHARGED
January	16	15
February	16	21
March	14	12
April	23	20
May	16	17
June	20	19
July	12	12
August	10	22
September	9	18
October	8	15
November	15	4
December	13	13
Totals	172	188

TABLES III. AND IV.

General Results.

		QUIESCENT.	IMPROVED.	UNIMPROVED.
Incipient Tuberculosis	109	36	69	4
Mod Adv. "	75	11	43	21
Advanced "	4	0	0	4
	188	47	112	29

	1908	1909	1910	1911	1912	1913
No.	No.	%	No.	%	No.	%
1908	11	6	11	11	11	11
1909	11	11	11	11	11	11
1910	11	11	11	11	11	11
1911	11	11	11	11	11	11
1912	11	11	11	11	11	11
1913	11	11	11	11	11	11
Total	11	11	11	11	11	11

TABLE V.

Gain and Loss of Weight.

	1908	1909	1910	1911	1912	1913
Patients who gained weight	45	124	122	121	177	158
Patients who lost weight	9	8	15	26	23	30
Totals	54	132	137	147	200	188
Average gain per patient	13.9	14.53	14.65	11.26	11.4	11.27
Average loss per patient, lbs..	5.2	4.6	5.	6.3	7.56	2.9

Maximum Individual Gain.

Male Patients was	36 lbs 8 ozs.
Female Patient was ...	19 lbs. 12 ozs.

TABLE VI.

Under 15 years	4
15 to 20 years	39
20 to 30 "	76
30 to 40 "	74
40 to 50 "	29
Over 50 years	6
Total	188

TABLE VII.

Married ..	95
Single ..	93
Total ..	188

TABLE VIII

Occupations

Factory hand	33	Dressmaker	3
Machinist	12	Salesman	3
Clerk	9	Stone Grinder	1
Hatter	4	Tool Maker	1
Shoe Cutter	5	Baker	3
Waiter	4	Polisher	2
Stenographer	3	Insurance Agent	4
Rodman	1	Night Watchman	1
Carpenter	4	Tailor	5
Stone Polisher	1	Steam Fitter	1
Iron Moulder	4	Police Matron	1
Cigar Maker	2	Peddler	2
Collector	3	Laundress	1
Housework	26	Engineer	2
School	7	Caterer	1
Press Hand	2	Motorman	4
Police Officer	2	Mason	1
Painter	1	Electrician	1
Printer	2	Plumber	1
Driver	7	Jeweler	2
Laborer	6	Paper Hanger	1
Tinsmith	1	Chauffeur	1
Structural Iron Worker	1	Leather Finisher	2
Bartender	4		
		T tal	188

The average length of stay of 131 patients admitted and discharged in 1913 (less 17 patients staying less than 30 days) is 3 months, 9.25 days.

Respectfully submitted,

JOHN L. MEEKER, M. D.,
Medical Director.

Tables I, II and III

Condition, Result and Number of Days

Treated in Institution

1913

TABLE I

PATIENTS ADMIITTED AND REMAINING IN INSTITUTION JANUARY 1, 1913

No. of Pa- tient	Diagnosis	No. of Days 1912	No. of Days 1913	Total Days	Result
723	Incipient Tuberc.	140	14	154	Improved
732	Incipient Tuberc.	123	28	151	Improved
735	Mod. Adv. Tuberc.	119	8	127	Improved
737	Incipient Tuberc.	117	4	121	Improved
740	Incipient Tuberc.	105	18	123	Improved
742	Incipient Tuberc.	104	9	191	Arrested
743	Incipient Tuberc.	121	18	139	Improved
744	Incipient Tuberc.	104	32	136	Improved
746	Incipient Tuberc.	99	51	150	Improved
747	Mod. Adv. Tuberc.	99	124	223	Unimproved
748	Mod. Adv. Tuberc.	96	99	195	Improved
749	Incipient Tuberc.	87	19	114	Improved
750	Incipient Tuberc.	94	39	133	Arrested
752	Incipient Tuberc.	89	13	102	Improved
754	Mod. Adv. Tuberc.	85	29	116	Improved
755	Mod. Adv. Tuberc.	85	28	113	Improved
756	Incipient Tuberc.	84	91	175	Improved
757	Incipient Tuberc.	83	91	174	Improved
758	Mod. Adv. Tuberc.	84	31	114	Unimproved
759	Mod. Adv. Tuberc.	83	40	123	Unimproved
760	Incipient Tuberc.	76	17	123	Improved
762	Mod. Adv. Tuberc.	74	110	184	Improved
764	Incipient Tuberc.	70	51	121	Improved
765	Incipient Tuberc.	70	27	97	Improved
766	Incipient Tuberc.	70	51	121	Improved
767	Mod. Adv. Tuberc.	70	53	123	Improved
768	Mod. Adv. Tuberc.	67	2	119	Improved
769	Mod. Adv. Tuberc.	63	18	81	Unimproved
770	Mod. Adv. Tuberc.	62	53	116	Improved
771	Incipient Tuberc.	62	47	109	Improved

TABLE I—*Continued.*

PATIENTS ADMITTED AND REMAINING IN INSTITUTION JANUARY 1, 1913

No. of Patient	Diagnosis	No. of Days 1912	No. of Days 1913	Total Days	Result
772	Incipient Tuberc.	61	84	145	Improved
773	Incipient Tuberc.	60	91	151	Improved
774	Mod. Adv. Tuberc.	57	15	72	Improved
776	Mod. Adv. Tuberc.	53	53	106	Unimproved
778	Incipient Tuberc.	49	53	102	Arrested
779	Mod. Adv. Tuberc.	42	83	125	Unimproved
780	Incipient Tuberc.	43	47	90	Improved
781	Incipient Tuberc.	42	61	103	Improved
782	Mod. Adv. Tuberc.	40	111	151	Improved
783	Mod. Adv. Tuberc.	40	79	119	Arrested
784	Incipient Tuberc.	40	111	151	Improved
785	Incipient Tuberc.	40	109	149	Improved
786	Mod. Adv. Tuberc.	36	74	110	Improved
789	Incipient Tuberc.	28	123	151	Arrested
790	Mod. Adv. Tuberc.	28	155	183	Improved
791	Mod. Adv. Tuberc.	27	154	181	Improved
792	Incipient Tuberc.	25	79	104	Improved
793	Mod. Adv. Tuberc.	20	100	120	Unimproved
794	Advanced Tuberc.	17	218	235	Unimproved
795	Incipient Tuberc.	16	72	88	Arrested
796	Mod. Adv. Tuberc.	15	57	72	Unimproved
797	Advanced Tuberc.	4	31	35	Unimproved
798	Incipient Tuberc.	5	28	33	Improved
799	Mod. Adv. Tuberc.	3	117	120	Improved
800	Incipient Tuberc.	2	120	122	Arrested
801	Mod. Adv. Tuberc.	1	162	163	Unimproved
802	Incipient Tuberc.	1	179	180	Arrested

TABLE II.

PATIENTS ADMITTED AND DISCHARGED, 1913

Number of Patient	Diagnosis	Result	No. of Days Treated in 1913
803	Incipient Tuberc.	Arrested	120
804	Incipient Tuberc.	Improved	121
805	Mod. Adv. Tuberc.	Arrested	113
806	Incipient Tuberc.	Improved	95
807	Mod. Adv. Tuberc.	Arrested	119
808	Incipient Tuberc.	Improved	28
809	Mod. Adv. Tuberc.	Arrested	116
810	Mod. Adv. Tuberc.	Arrested	122
811	Incipient Tuberc.	Improved	49
812	Incipient Tuberc.	Improved	105
813	Mod. Adv. Tuberc.	Improved	53
814	Mod. Adv. Tuberc.	Improved	114
815	Mod. Adv. Tuberc.	Unimproved	4
816	Mod. Adv. Tuberc.	Unimproved	4
817	Mod. Adv. Tuberc.	Unimproved	140
818	Mod. Adv. Tuberc.	Unimproved	10
819	Mod. Adv. Tuberc.	Improved	117
820	Mod. Adv. Tuberc.	Unimproved	22
821	Incipient Tuberc.	Arrested	181
822	Incipient Tuberc.	Improved	120
823	Mod. Adv. Tuberc.	Improved	62
824	Incipient Tuberc.	Arrested	75
825	Mod. Adv. Tuberc.	Unimproved	151
826	Incipient Tuberc.	Arrested	122
827	Mod. Adv. Tuberc.	Improved	64
828	Incipient Tuberc.	Improved	122
829	Mod. Adv. Tuberc.	Unimproved	118
830	Mod. Adv. Tuberc.	Improved	55
831	Incipient Tuberc.	Arrested	94
832	Incipient Tuberc.	Improved	17
833	Incipient Tuberc.	Unimproved	57
834	Mod. Adv. Tuberc.	Unimproved	139
835	Mod. Adv. Tuberc.	Improved	79
836	Incipient Tuberc.	Improved	28
837	Mod. Adv. Tuberc.	Unimproved	15
838	Incipient Tuberc.	Arrested	52
839	Mod. Adv. Tuberc.	Unimproved	84
840	Mod. Adv. Tuberc.	Improved	46

TABLE II—*Continued.*

PATIENTS ADMITTED AND DISCHARGED, 1913

Number of Patient	Diagnosis	Result	No. of Days Treated in 1913
81	Mod. Adv. Tuberc.	Improved	10
82	Mod. Adv. Tuberc.	Arrested	122
83	Mod. Adv. Tuberc.	Unimproved	103
84	Mod. Adv. Tuberc.	Improved	13
85	Incipient Tuberc.	Arrested	14
86	Incipient Tuberc.	Improved	117
87	Mod. Adv. Tuberc.	Improved	18
88	Incipient Tuberc.	Unimproved	7
89	Mod. Adv. Tuberc.	Improved	119
90	Incipient Tuberc.	Improved	12
91	Incipient Tuberc.	Arrested	36
92	Incipient Tuberc.	Unimproved	124
93	Incipient Tuberc.	Improved	124
94	Mod. Adv. Tuberc.	Improved	61
95	Mod. Adv. Tuberc.	Arrested	122
96	Incipient Tuberc.	Arrested	134
97	Incipient Tuberc.	Arrested	110
98	Incipient Tuberc.	Improved	45
99	Incipient Tuberc.	Arrested	4
100	Advanced Tuberc.	Unimproved	7
101	Incipient Tuberc.	Improved	79
102	Incipient Tuberc.	Improved	78
103	Incipient Tuberc.	Arrested	121
104	Mod. Adv. Tuberc.	Unimproved	126
105	Mod. Adv. Tuberc.	Improved	121
106	Incipient Tuberc.	Improved	117
107	Incipient Tuberc.	Improved	61
108	Mod. Adv. Tuberc.	Arrested	123
109	Incipient Tuberc.	Improved	13
110	Incipient Tuberc.	Arrested	120
111	Mod. Adv. Tuberc.	Arrested	119
112	Incipient Tuberc.	Arrested	120
113	Incipient Tuberc.	Improved	51
114	Incipient Tuberc.	Improved	11
115	Mod. Adv. Tuberc.	Improved	121
116	Incipient Tuberc.	Improved	67
117	Advanced Tuberc.	Unimproved	9
118	Mod. Adv. Tuberc.	Improved	122

TABLE II—*Continued.*

PATIENTS ADMITTED AND DISCHARGED, 1913.

Number of Patient	Diagnosis	Result	No. of Days Treated in 1913
879	Incipient Tuberc.	Arrested	123
880	Incipient Tuberc.	Arrested	48
881	Incipient Tuberc.	Improved	241
882	Mod. Adv. Tuberc.	Unimproved	161
883	Incipient Tuberc.	Improved	13
884	Incipient Tuberc.	Arrested	121
886	Incipient Tuberc.	Improved	21
887	Incipient Tuberc.	Arrested	167
888	Mod. Adv. Tuberc.	Improved	127
889	Incipient Tuberc.	Improved	122
890	Incipient Tuberc.	Improved	119
891	Incipient Tuberc.	Improved	62
892	Mod. Adv. Tuberc.	Improved	31
893	Incipient Tuberc.	Improved	121
894	Incipient Tuberc.	Improved	38
895	Incipient Tuberc.	Arrested	66
896	Incipient Tuberc.	Unimproved	11
897	Incipient Tuberc.	Arrested	126
898	Mod. Adv. Tuberc.	Arrested	15
899	Incipient Tuberc.	Improved	16
900	Mod. Adv. Tuberc.	Unimproved	22
901	Mod. Adv. Tuberc.	Improved	75
902	Incipient Tuberc.	Arrested	112
903	Mod. Adv. Tuberc.	Improved	107
904	Incipient Tuberc.	Arrested	124
905	Incipient Tuberc.	Arrested	13
906	Mod. Adv. Tuberc.	Improved	115
907	Incipient Tuberc.	Arrested	113
908	Incipient Tuberc.	Improved	91
909	Incipient Tuberc.	Improved	67
910	Incipient Tuberc.	Arrested	100
911	Incipient Tuberc.	Arrested	120
913	Incipient Tuberc.	Improved	52
914	Incipient Tuberc.	Unimproved	55
915	Incipient Tuberc.	Improved	41
916	Incipient Tuberc.	Improved	51
917	Mod. Adv. Tuberc.	Improved	62
920	Incipient Tuberc.	Improved	49

TABLE II—*Continued.*

PATIENTS ADMITTED AND DISCHARGED, 1913.

Number of Patient	Diagnosis	Result	No of Days Treated in 1913
922	Mod. Adv. Tuberc.	Improved	122
923	Incipient Tuberc.	Improved	100
925	Mod. Adv. Tuberc.	Unimproved	20
926	Incipient Tuberc.	Improved	115
927	Incipient Tuberc.	Arrested	123
929	Mod. Adv. Tuberc.	Improved	127
930	Mod. Adv. Tuberc.	Improved	23
931	Mod. Adv. Tuberc.	Arrested	112
933	Mod. Adv. Tuberc.	Arrested	79
935	Incipient Tuberc.	Improved	67
938	Mod. Adv. Tuberc.	Imp. oved	9
940	Incipient Tuberc.	Improved	11
942	Incipient Tuberc.	Improved	60
951	Incipient Tuberc.	Improved	33
956	Incipient Tuberc.	Arrested	30
958	Incipient Tuberc.	Arrested	36
* 940	Incipient Tuberc.	Improved	12

* Reinstated.

TABLE III.
PATIENTS ADMITTED IN 1913 REMAINING IN IN-
STITUTION JANUARY 1, 1914.

No of Patient	Diagnosis	No. of Days Treated in 1913
885	Mod. Adv. Tuberculosis	218
912	Mod. Adv. Tuberculosis	175
918	Mod. Adv. Tuberculosis	162
919	Incipient Tuberculosis	160
921	Mod. Adv. Tuberculosis	117
924	Incipient Tuberculosis	147
928	Incipient Tuberculosis	138
932	Incipient Tuberculosis	99
934	Incipient Tuberculosis	97
936	Incipient Tuberculosis	96
937	Mod. Adv. Tuberculosis	95
939	Incipient Tuberculosis	90
941	Incipient Tuberculosis	90
943	Mod. Adv. Tuberculosis	74
944	Incipient Tuberculosis	71
945	Mod. Adv. Tuberculosis	65
946	Incipient Tuberculosis	73
947	Incipient Tuberculosis	55
948	Mod. Adv. Tuberculosis	54
949	Mod. Adv. Tuberculosis	53
950	Incipient Tuberculosis	51
952	Incipient Tuberculosis	46
953	Incipient Tuberculosis	44
954	Mod. Adv. Tuberculosis	41
955	Incipient Tuberculosis	40
957	Mod. Adv. Tuberculosis	37
959	Incipient Tuberculosis	32
960	Mod. Adv. Tuberculosis	32
961	Mod. Adv. Tuberculosis	27
962	Mod. Adv. Tuberculosis	21
963	Mod. Adv. Tuberculosis	19
964	Incipient Tuberculosis	19
965	Mod. Adv. Tuberculosis	18
966	Incipient Tuberculosis	14
967	Incipient Tuberculosis	13
968	Mod. Adv. Tuberculosis	11
969	Advanced Tuberculosis	11
970	Advanced Tuberculosis	5
971	Incipient Tuberculosis	2
972	Incipient Tuberculosis	2
973	Mod. Adv. Tuberculosis	2

Respectfully submitted,

JOHN L. MEEKER, M. D.,

Medical Director.

ANNUAL REPORT

OF THE

Superintendent of the Newark

City Sanatorium for Tuberculosis

ANNUAL REPORT

Superintendent of the Newark

City Sanatorium for Tuberculosis

To Mr. David D. Chandler, Health Officer:

DEAR SIR: I herewith respectfully submit to you my report of the administration of the Newark City Tuberculosis Sanatorium for the year 1913.

Total number of patients treated..... 229

SALARIES

Medical Director .....	.\$ 1,524.00
Superintendent and Head Nurse.. .. .	1,200.00
Nurses (2)	1,320.00
Clerk	720.00
Engineer	1,000.00
Cook	480 00
Assistant Cook	287.50
Kitchen Helper	216 00
Maids (4)	677.44
Waitresses (2)	432 00
Laundresses (3)	780.00
Orderlies (2)	600.00
Stableman	420 00
Helper	360.00
<hr/> \$ 10,016.94	

LIGHT, HEAT, POWER AND WATER

Electric Light	\$ 913 34
Coal	1,345.59
Wood	43 "
Electric Power	111.30
Water	742 90
	<hr/> \$ 3,156.88

DRUGS, ETC

Drugs	\$ 237 21
Gauze	660 00
Thermometers	84.00
Sputum Cups	208 50
	<hr/> \$ 1,189 71

FOOD SUPPLIES.

Butter	\$ 1 00
Eggs	1 00
Milk	8 00
Sea Food	11 80
Groceries, Canned Goods, etc	2 50
Vegetables	17 00
Meats	11 20
Bread, Cake, etc.	48 00
Ice	5 00
Mineral Water	8 00
	<hr/> \$ 115.87 92

FURNITURE AND FIXTURES

Rugs	\$ 7 00
Scrap Baskets	1 28
Alcohol Stove	1 00
Carpet Beater	1 00
Sewing Machine	3 00
China Closet	10 00
P	1 00
.	61 50
.	1 28
.	29 00
Refrigerator	8 00
	<hr/> \$ 108 00

IMPROVEMENTS AND REPAIRS

ISS	.\$	8 27	
ardware		214 71	
Plumbing		20 50	
Cleaning Cesspool		50 00	
Electrical Supplies		9 24	
Setting Clothes Poles.....		4 00	
Paints and Oils.....		78 77	
Painting Kitchen		9 00	
Repairing Boiler		193 77	
Repairing Range		16 10	
Lumber		12 15	
Chair Seats		1 68	
Seeds .....		.90	
Carriage and Wagon Repairs.....		40 50	
	-----	-----	\$ 659 59

BEDS AND BEDDING.

Spreads	\$	42 00	
Sheets		90 86	
Springs		36 00	
Blankets		121 88	
Pillow Cases		13 76	
Mattresses		25 50	
			> 330 00

DRY GOODS

Towels .	.\$	47 16	
Overalls		4 50	
Crash		6 00	
Wash-cloths ..		3 69	
Napkins		5 85	
Tape .....		.38	
Canvas		10 12	
Muslin		19 60	
	-----	-----	\$ 97 30

LAUNDRY SUPPLIES.

Soap Powder .....	.\$	58 50	
Soap Chips		60 95	
Clothes Baskets ..		10 43	
Clothes Pins ..		1 20	
	-----	-----	\$ 131 08

MISCELLANEOUS SUPPLIES AND EXPENSES

Newspapers	40.79	
Cleaning Windows	50.00	
Paper Napkins	41.50	
Gloves	1.00	
Toilet Paper	34.03	
Matches	2.95	
Repairing Clock .....	.25	
	<hr/>	\$ 589.33
Total for Sanatorium.....		<hr/> \$ 32,480.81

In conclusion I wish to thank the members of the Board and the members of the Sanatorium Committee for their sincere co-operation, which enabled me to carry on the work of the institution, and to the employes for their willing assistance.

Very respectfully,

MISS EDITH RILEY,
Superintendent.

Newark Weather in the Year 1913

NEWARK WEATHER—1913

Mr. David D. Chandler, Health Officer, Newark, N. J.:

DEAR SIR I herewith submit the following weather report for the year 1913:

The New Year began with a beautiful mild day. On January 3rd and 4th heavy rain with snow accompaniment marked the first storms of 1913. January 12th ushered in the first cold wave of the year, with high winds and rain, snow and hail. A heavy fog, lasting all the night of January 30th, settled over the city. On January 31st spectacular lightning occurred during the storm. There were sixteen days of January on which it either rained or snowed, 3.74 inches of rain fell during January, while 1.75 inches of snow dropped. The highest January temperature, 62 degrees, occurred on January 31st; the lowest, 19 degrees, on January 9th.

February began bright, clear and cold. The storms of the month, though not very violent, were four of them snow bearing and three of them rain carrying. Lincoln's Birth day was a fine, clear, cold day. On February 18th a large lunar halo made its appearance. Washington's Birthday was dark, dreary and dull. Fog prevailed during the entire day. In the evening storm, hail, thunder and lightning made their appearance. The maximum February temperature was 62 degrees, February 21st; the minimum was 10 degrees on February 13th. Eighteen days of February were clear; 5.10 inches of snow fell, while 2.83 inches of rain dropped.

March came in "like a lamb" and "like a lamb" left us. The day began clear, but by 4 P. M. 1st March a heavy snow storm came. March had no other attacks but a total with heavy snow on March 1st, 14th and 21st. Good Friday, March 21st, was clear, cold and windy. Easter Sunday was cloudy and windy. The only record of fog comes on March 28th, on which the fog reached 35 miles per hour. The month closed with "drizzle" weather. There were fifteen days during which it rained. The high temperature for the month, 70 degrees, occurred on March 25th; the low, 3 degrees, on March 7th. The total rainfall, 5.2 inches was above the average for March.

April began with a moderate temperature. Snow flurries were observed on April 5th and 6th. That was the last snow seen until November. Fifteen stormy days were April's record, with a large total rainfall of 5.94 inches and a snowfall of .25 inches; 75 degrees on April 23rd was the high temperature, 31 degrees on April 24th and 11th was the low temperature mark.

The month of May began with a series of clear warm days, not a drop of rain falling until May 15th. On ten of the cloudy days some moderate showers fell, making the total measurement of which was 3.63 inches. A slight fog covered the city on May 23rd from noon until 10 P. M. Memorial Day, May 30th, was a warm, clear day; 93 degrees on May 3rd was the maximum for May, while 42 degrees on May 10th was the minimum for the month.

June was balmy and pleasant. There were only three days on which it rained. For these three days the rainfall was 3.29 inches, the heaviest storm occurring on June 20th, when 2.25 inches of rain fell. Hail, thunder and lightning accompanied this storm. 1.20 inches of rain fell in the first five minutes of the storm. The electric energy of the storm

of June 7th did considerable damage. Twenty three clear days were in June's record, 95 degrees on June 10th and 47 degrees on June 9th were the respective high and low temperature marks for the month.

July was a very hot part of the year with only ten shower days, the total rainfall of water netted 1.4 inches. This was not a normal fall. Every shower had a thunder and lightning accompaniment. There was no rain on St. Swithin's Day. July 6th was warm and clear. A heavy twenty five mile per hour wind blew during the July 28th storm. The day was hazy until 2 P. M. July 29th was also a hazy day. The highest temperature of the month, 95 degrees, occurred on this day. 58 degrees was the low temperature for July. It was recorded on July 7th.

August 1st was a dull, dark day, on the afternoon of which a heavy thunder storm occurred. There were nine rainy days in August with the subnormal rainfall of 2.6 inches. Twenty clear days were the August record. The highest temperature mark, 67 degrees, was reached on August 10th, 20 degrees, the low mark, on August 3rd and 22nd respectively.

September 1st, 2nd and 3rd were clear and warm. Four days of storm and heavy fallow. The general temperature conditions were agreeable. The nights of September 14th and 15th had light frosts. A heavy halo occurred on September 13th. Eight of September's twenty four days were clear. Eleven of the remaining days had rain storms. The total rainfall was 4.7 inches. The maximum temperature for September was 80 degrees on September 24th. The minimum temperature was 44 degrees on September 15th.

October 1st made a record for itself by having the total of 5.99 inches of rainfall during its twenty four hours. While Columbus Day, October 12th, was a fine, mild day.

the early morning was marked by a 35 to 40 mile per hour wind storm and rain. The storms of October 20th were both accompanied by 45 mile per hour winds. Hallow Eve, October 31st, was a fine, cool night. The record fall of 14.82 inches of rain distinguishes October, 1913, from other Octobers. Seventy-one degrees on October 5th and 36 degrees on October 21st were the respective high and low temperatures.

Cool November opened with a clear day. Election Day, November 5th was bright, cool and clear. A fog on November 7th, preceded two rainy days. The first snow flurry of the year came on November 16th. Fogs occurred on November 21st and 22nd. A beautiful rainbow appeared after a wind and rain storm November 24th. A little hail and snow fell in the evening of November 27th, Thanksgiving Day. The day was generally cold, dark and dull. The total rainfall, 2.06 inches, was below normal. Seventy-two degrees on November 20th and 12 degrees on November 11th were the maximum and minimum temperatures for November.

December ushered in its roll of cold days with cold, lousy weather. Frosty fogs occurred on December 3rd, 11th and 12th. Snow buries came with December 8th and 9th. The first snow fall of the winter occurred on December 10th. The first ice appeared on the canal and meadows about December 19th. Christmas Day was cloudy, dark, rainy and cold. There were only eleven clear days in December. Fifty-eight degrees on December 3rd and 17 degrees on December 28th were the high and low temperatures reached. The December rainfall total was 4.29 inches.

WILLIAM WIENER,

Meteorologist

TEMPERATURE CHART IN FAHRENHEIT DEGREES

MONTH	Monthly Mean Temperature			Maximum Recorded		Minimum Recorded	
	1843	1892	1913	1892	1913	1892	1913
	to 1892	to 1913		to 1913		to 1913	
January	29	29.3	34.7	66	62	-10	19
February	31	24.6	30.0	67	62	-9	10
March	38	39.1	42.7	83	76	"	* 3
April	49	52.0	53.6	93	75	22	31
May	59	61.0	62.1	97	93	34	42
June	69	69.2	71.6	99	95	45	47
July	74	74.0	76.9	102	+ 99.5	49	58
August	72	72.8	73.8	97	97	50	55
September	65	65.8	65.2	98	87	34	44
October	53	54.0	57.8	89	79	27	36
November	43	43.2	47.6	74	72	15	26
December	33	32.0	35.2	62	58	2	17

* Lowest temperature of the year, 3 degrees, March 7

† Highest temperature of the year, 96.5 degrees, July 30.

Annual mean, 1843-1892, 53 degrees.

Annual mean, 1892-1913, 51.6 degrees.

Annual mean, 1913, 54 degrees

CHARACTER OF THE DAYS OF 1913

MONTH	Clear (Cloud- less)	Partly Cloudy (Fair)	Cloudy (Sun- less)	Days in which pre- cipitation occurred	Average No days precipitation occurred	
					1892	1913
January. . . .	10	9	12	16		11
February . . .	18	3	7	9		11
March	10	9	12	17		13
April	12	10	8	15		14
May	16	9	6	10		11
June	23	5	2	3		10
July	19	5	7	11		11
August	20	7	4	9		11
September . .	15	6	9	11		8
October	15	7	9	13		7
November . . .	16	6	8	8		10
December . . .	11	9	11	8		10
Totals	187	87	97	147		117

MISCELLANEOUS INCIDENTS OF YEAR 1913.

MONTH	Barometer			Wind		Humidity and Sunshine	
	Highest	Lowest	Average	Average Direction	Velocity	Humidity Average	Per cent. Sunshine *
January.....	30.76	28.95	29.86	N. W.	30	79	44
February.....	30.57	29.77	30.17	W.	18	43.8	81.2
March.....	†30.90	29.66	30.28	S. E.	35	53.6	67
April.....	30.65	29.83	30.24	N. W.	16	61.1	59
May.....	30.50	29.88	30.19	S. W.	16	75.2	70
June.....	30.50	29.93	30.21	S. W.	18	72	83
July.....	30.28	29.83	30.06	S. W.	25	72	83
August.....	30.45	29.08	29.26	S. W.	20	62	73
September.....	30.66	30.01	30.18	N. W.	12	72	53
October.....	30.56	29.76	30.12	N. W.	45	63	83
November.....	30.60	‡29.45	30.14	N. W.	14	65	79
December.....	30.50	‡29.45	30.07	W.	20	57	73

Annual average for the barometer, 30.06 inches.

Prevailing direction of the wind, westerly.

*Percentage of sunshine, based upon estimates obtained from three observations daily. The bureau has no sunshine recorder.

†Highest barometer recorded for 1913, March 18.

‡Lowest barometer recorded for 1913, November 9 and December 26.

EXCESSIVELY COLD OR HOT DAYS.

Average number when temperature fell below freezing, 32 degrees Fahr.			Average number when temperature rose to 90 degrees or above.		
MONTH	1892 to 1913	1913	MONTH	1892 to 1913	1913
January.....	24	17	May.....	1	2
February.....	23	26	June.....	3	8
March.....	16	18	July.....	6	8
April.....	3	3	August.....	3	3
October.....	1	---	September.....	1	---
November.....	9	4	October.....	1	---
December.....	20	14			
Totals.....	97	82	Totals.....	15	21

PRECIPITATION (IN INCHES).

MONTH	Rain and Melted Snow			Total Snow Unmelted	
	Period 1892-13	Period 1843-92	Year 1913	Period 1892-13	Year 1913
January.....	3.33	3.65	3.74	9.95	2.00
February.....	3.70	3.60	2.83	2.71	5.10
March.....	3.93	3.81	5.72	6.09	.25
April.....	3.59	3.53	5.94	6.56	.25
May.....	3.85	3.97	3.63	.....	.....
June.....	3.59	3.57	3.29	.....	.....
July.....	4.20	4.28	1.94	.....	.....
August.....	5.01	5.07	2.09	.....	.....
September.....	3.78	3.75	4.79	.....	.....
October.....	3.47	3.58	14.82	2.40	.....
November.....	3.60	3.63	2.06	2.40	.....
December.....	3.73	3.63	4.59	5.63	.07
Totals.....	45.78	46.07	55.44	33.34	7.57

Note—One inch of melted snow averages one-tenth of an inch of rain.

U. S. Census Population, 1910.....	347,469
Estimated population, 1913.....	380,000
Total area of the City's square miles.....	23.40
Built up square miles.....	17
Meadow land, square miles.....	6.48
Length of River and Bay Front, miles.....	10½
Number of miles of granite block.....	69.532
" " " " trap block	11.023
" " " " telford pavement	25.538
" " " " cobble stone pavement.....	1.870
" " " " asphalt pavement	52.699
" " " " brick pavement	50.208
" " " " bitulithic pavement	25.884
" " " " wood block pavement.....	0.508
" " " " bituminous concrete	0.886
" " " " bituminous macadam	0.125
" " " " medina sandstone pavement.....	0.169
" " " " Warrenite pavement	0.099
Total length of paved streets, miles.....	238.541
Number of miles of unpaved streets.....	67.0
Length of Electric Railways, miles.....	156
Length of Steam Railways, miles.....	25½
Length of brick and concrete sewers, miles.....	79.33
Length of pipe sewers, miles.....	218.78
Length of private sewers, miles.....	35.615
Total length of sewers, miles.....	298.11
Total number of sewer basins.....	3,871
Length of water mains, miles.....	405
Average daily consumption of water, gallons.....	40.8
Capacity of water supplied per day, gallons.....	50,000,000
Number of buildings.....	60,281
Shade trees planted.....	8,376

PUBLIC PARKS.

Military, acres	6.45
Washington, acres	3.40
Lincoln, acres	4.37
Other Small Parks, acres.....	5.67

NEW PARKS.

Branch Brook, acres	280.62
Eastside, acres	12.00
Westside, acres	23.04
Riverbank	5.75
Weequahic, acres	315.08

In concluding my report I wish to express by sincere thanks to the members and employees for their active co-operation and assistance in carrying on the work of the year.

DAVID D. CHANDLER,

Health Officer.